35mm Today a 14-page Report

POPULAR

PHOTOGRAPHY

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NOVEMBER, 1951

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6.5x9 PLAUBEL MAKINA II, f2.9 Anticomar, cpld. r-f	$89.00	$ 8.90
4x5 BLACK ANNIVERSARY, f4.5 Xenar, Compur B, Kalart r-f	137.50	13.75
4x5 PRE ANNIVERSARY, Kalart r-f, 5½" KA, Compur A shutter	112.00	11.20
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4x5 SPEED GRAPHIC, 6" f4.5 Xenar, solenoid gun, r-f	119.00	11.90
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4x5 GRAFLEX B, f4.5 KA, revolving back	75.00	7.50
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Brand-New

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very latest model

35mm
PRAKTIFLEX
IIb Synchro
with fast f2.9 Ludwig VICTAR

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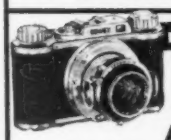
On time as little as $6.25 down.

rugged, compact,



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35mm
ADOX-EDINEX
with f2.0 "C" coated Schneider XENON in Compur-Rapid Synchro

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finest by far!

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"C" Coated
ASTRO-LEICA TELEPHOTO

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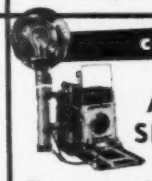

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in flash Prontor II shutter

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Shipping Cost 35c per lens.

F:3.5 WIDE-ANGLE for KINE EXAKTA $39.95

This coated, color-corrected, imported 40mm f:3.5 lens, especially made to our specifications, will be easily recognized by smart Kine Exakta owners as their best buy in wideangle lenses. Faster than its more expensive "competitors" (the Heliopian and Isogon wideangle lenses are only f:4.5, cost much more), it is well constructed, in a neat chromium mount, fully guaranteed.

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This film is unconditionally guaranteed to be in every respect equal to factory-packed Anscocolor film and is not to be confused with reloaded motion-picture film generally sold at a lower price. Expiration Date at least one year from date of purchase.

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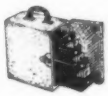
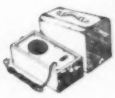
S-300 leatherette-covered plywood, door for dustproof storage, carrying handle Not only a practical slidefile, but really a "piece of furniture." Three drawers, available slotted, C. up to 900 r. or 300 g., or for group filing, C. up to 1080 r. or 450 g. Worth almost double (specify slots or group). (*Sh. Wt. 4 lbs.*) **$6.95**



S-400 Same as S-300, but with four drawers, thus giving 33⅓ more storage space (specify slots or group). **$8.69** (*Shp. Wt. 5 lbs.*)



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2x2 Glass Slidebinders 2½¢ each

In lots of 200

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} Masks fit glass and metal binders

Imported All Metal

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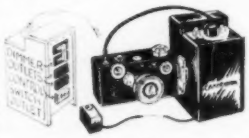
Selftimer for Bolsey B, B2, C, special model, including cable release $2.95.

Save $20.00 on brand-new

PHOTO-FLOOD SYNCHRONIZER $9.95



We owe you an explanation for the ridiculously low price: Present cost of materials would make a $50.00 list price for this unit necessary, causing manufacturer who had sold thousands of Cameratrols at $29.95, to sell us his entire stock and discontinue production. And our buyers grabbed it! But, of course, there won't be any more after this one lot is gone—so, hurry! Cameratrol makes flash-like exposures with ordinary No. 2 photoflood bulbs, at a fraction of the cost of a flashbulb. Cameratrol can be used with any camera: instant synchronization is established through cable release socket. Built-in dimmer switch makes focusing comfortable, saves current and bulb-life. 18-foot remote control switch virtually eliminates need for selftimer, adds many possibilities to indoor picture-taking.

Virtually any camera fits onto Cameratrol bracket. Outfit not only contains Cameratrol synchronizer, electrically operated cable release and remote control switch and Hi-lo switch, but also two eight foot lamp cords with sockets, making the value of the individual components alone worth so much more than our moderate price of $9.95.

Shipping Weight 6 lbs. *Add $.50 for Leica model.*

Suggestion: Two sets of 10" reflectors, clamps, No. 2 bulbs $3.00.

THREE UNIT

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Two aluminum 10" reflectors for #1 or #2 bulbs, one bullet reflector for spot effects, all three complete with swivel joint, switch, socket, clamp and cord—at a fraction of their usual cost. *Shipping Weight 5½ lbs.* Two #2 one #1 photoflood bulbs 94c extra. Free on request with $5.49 or $6.49 outfit: Shutter Speed Tester.

$6.00 Hilo (Dimmer) Switch only $2.50, if ordered with $5.49 (above) or $6.49 (below) outfit.

Only Spiratone offers you this $11.00

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Shipping Weights: Stand 4 lbs.; Reflectors 4 lbs.
Suggestions: Two #2 photoflood bulbs ..... $ .74
Extra Clamp-on bullet with bulb (for semi-spot) 1.79
Photoflood Stand with Crossbar only 3.49

An almost Unbelievable Offer! But it won't last!

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complete with reflector

Works as extension in conjunction with ANY flashgun, WITHOUT any wires. Made to sell for so much more only few could formerly afford it. Complete with standard tripod screw and socket, indicator lamp, on-off switch, sensitivity control knob, midget bulb adapter—all ready for use (except for batteries) $14.95—Two for $27.95.

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Rotate to red (ortho), yellow-green (OA-type, for contact and enlarging) or green (panchromatic), without removing filters! Directional light permits 360 degree rotation. Each filter has working area of 48(!) sq. inches, is chemical resistant. Body all metal. Lightproof ventilators keep unit cool even under constant usage. Complete with bulb, cord, switch, mounting bracket—now a professional (original list price $14.95!) safelight for less than the cost of a small, single-filter, amateur unit.

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with the popular German

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Free with Autoknips II: 7" Cable Release.

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with lens and case

A compact, portable 35mm to 2¼x3¼ enlarger, ideally suited for the beginner with a limited budget. Complete with bulb, lens, negative holder, ready for use and instantly disassembled and stored in the handy carrying case.

FREE: TESTSTRIP MAKER TO ASSURE PERFECT EXPOSURES. $1.95 VALUE. REQUEST IT WITH ENLARGER.
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All prices include excise tax. Postage and insurance MUST be prepaid, even when no shipping weight is stated—overpayment will be credited in full. Everything listed is brand-new (unless otherwise stated) and fully guaranteed against defects. 25% deposit on C.O.Ds.

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with Empire panhead STYLE

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POLARIZING FILTER $2.49

Series V

21.5mm, 25mm $2.00—Ser. VI $2.98—Ser. VII $3.98 The only sky-filter that can be used with color! Helps eliminate reflections in water, show-windows, landscapes; Increases contrast between sky and clouds. Recommended for use with Kodachrome, Anscocolor and all black and white films. Fits standard filterholders.

Formerly, you had to pay $6.75 for a Series VI, $5.75 for a Series V polarizing filter—Spiratone brings your cost down to less than half!

Polarizing filters are delivered in leather-like snap-button compartment cases at no additional cost.

Save up to 60% in
GIGANTIC SALE IN OPTICAL GLASS

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Series V, VI, VII mounted in rings. All filters ground and polished. Your choice of medium yellow, orange, green, red, haze, skylight, type A or Photoflood conversion, UV16, UV17, Plus 1 (20" to 38"), Plus 2 (13" to 20"), Plus 3 (10" to 13").

Ser. V ea. $1.00 Ser. VI ea. $1.25

Ser. VII ea. $1.50

FREE: on request: Famous Make Filter Compartment Case with purchase of 4 or more Ser. V or VI filters (incl. polarizing) and closeup lenses. Cases cost regularly $1.50 (Ser. VI), $1.25 (Ser. V).

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LEATHER GADGET BAGS

Made by one of the foremost manufacturers in the field, and exclusively offered by us, through a special purchase, below or close to the usual wholesale prices. These bags are all brand new, first class merchandise not to be confused with "seconds" or "closeouts" or inferior leather bags.

Shipping Weights of Gadget Bags are 2 lbs. 2 lbs., 3 lbs., 3 lbs., 4 lbs.

SP1. **Really the solution for the photographer with few accessories, yet just too many to carry around separately. The SP1's rectangular shape and lack of inside divisions give it ample storage space for a bag only 10"x7"x4". A reinforced bottom, a large foldover flap and two small side flaps assure maximum protection, for the contents. The SP1 also, makes a sporty "over-the-shoulder-bag" for the young lady. Spiratone-priced at only** **$2.95**

SP2. **The SP2 is liked for its all-around versatility. Made of top-grain elk-tanned cowhide, the SP2 will be yours for years of rough handling. One large, two small inside pockets, one convenient, yet not bulky, outside opening zipper pocket, rigid shape-retaining bottom, reinforced with brass studs, 8"x10"x3"—recommended for the camera fan who likes his filters, exposure meter, extra films accessible, yet prefers extreme compactness. Available nationally at $10.00—a Spiratone buy at** **$5.59**

SP3. **Basically of the same overall construction as the SP2, the SP3 boasts in addition a roomy outside pocket that will hold plenty of the extras that make picture-taking real fun. Reflex Camera owners with lots of accessories will appreciate the added conveniences of the SP3. Budget- priced at half of list** **$6.95**

SP4. **A jumbo-sized genuine top-grain cowhide bag of beautiful appearance. Ample in size—9"x11½"x4"—for small press cameras and plenty of accessories. Zipper around top for easy accessability at contents. Roomy inside pockets and an extra large outside pocket. An unusual opportunity for the serious amateur and professional who wants an "easy-to-get-at bag" which his friends will never suspect cost only** **$10.95**

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6-section brass tripod, chromium finish, extends to 54", telescopes to only 15½", Ideal for 35mm, reflex, small folding and 8mm movie cameras, complete with Spiratone Panhead. By all established standards, this tripod should sell for twice our price of **$6.95**

Shipping Weight 4 lbs.

Coated, color-corrected, focusing

8mm 1½" f:1.9 TELE-PHOTO $29.95

Spiratone's own lens and one of the finest! Luxurious chrome-finished brass mount, diaphragm openings to f:22, distance settings from 3½ feet to infinity. Gives 3X linear magnification. Priced at less than other good telephoto lenses four times slower!

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1½" f:3.2 Focusing Telephoto	16.95
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7mm f:2.5 Wideangle Lens	29.95
6mm f:1.9 Wideangle Lens	39.95

Above lenses have standard threads and fit all turret and non-turret Revere, DeJur, Keystone, Franklin, and Perfex cameras, also the Kodak Reliant. Adapters are available for use of these lenses on the B&H Sportster, Trilens, Companion, the Bolex L-8 and the Cinemaster. Adapter $1.95.

For Color, For Black and White

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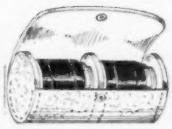
HAVE PROVEN A MUST FOR $16.95 each lens 35MM



For these cameras: Argus A2, C2, C3, C4, 21, Bantam, Bolsey B, B2, C, Contessa 35, Ikonta 35, Kine Exakta, F: 2.8, 2.9, 3.5 Kodak 35 (RF), Mercury II, Perfex, Polaroid Land, Pony 828, 135, Praktiflex f:2.9, 3.5; Retina I, II, Signet, Vito.

Set of Telephoto and Wideangle lenses in double leather case, for any of the cameras listed **$29.95**

New, uniformly low prices save you between $5.25 and $19.70 per lens!

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Scientifically designed means of attachment of auxiliary lens to camera—every adapter expressly fitted for your camera.

*If you wish to purchase a lens or set of lenses to be used on two or more cameras, write us what your problem is, and we will try to furnish you with that model which can be adapted for use with your particular cameras. Each lens is furnished for use with one camera only—additional adapters are $1.25 each.

PROVEN FEATURES STILL AVAILABLE DESPITE NEW LOW PRICES:

Extra-hard S-coating.

Full color correction.

Free genuine leather case.

Lifetime Service Guarantee

No change in exposure or lens opening necessary.

Wideangle Finder Attachment for 35MM cameras **$1.95**

When ordering, be sure to state what camera and lens you have.

Save $10.00 on

KING SOL SOLENOID $5.95

Guarantee yourself perfect flash synchronization the way professional photographers always did: with a solenoid. Almost any between-the-lens shutter can be perfectly synchronized to make flash exposures at the highest speeds foolproof. If you own a partially or non-synchronized Rollei, Speed Graphic, Retina, Super Ikonta, Bantam Special or other camera with a Compur-type shutter, you won't want to miss this rare buy. With instructions for installation (state camera, shutter you have) $5.95—two for $10.50. NEWSCHIEF Flash Gun, 3" deep (!) highly polished reflector, solenoid and synch cord outlets, focusing spot, circuit-breaker, ejector, two extension outlets, made for American Bolex to sell for $29.00; incl. battery $8.95

Portable, Crystal-Beaded

30"x40" TRIPOD SCREEN $8.19

Sensational! Never before was a fine quality screen offered at so low a price. Crystal-beaded pyroxylin surface adds extra brilliance to your pictures! Screen raises and lowers on elevating rod, assures positive screen alignment. The metal can is finished in scratch-resistant hammerton blue enamel. Carrying handle sets automatically for balanced carrying. The sturdy tripod is chrome-plated and has protective rubber tips. WITH OTHER MAKE SCREEN PRICES RISING, THESE LOWEST-IN-SCREEN HISTORY PRICES AND MANY VALUABLE FEATURES ADD UP TO ANOTHER UNBEATABLE SPIRATONE VALUE.

Screen Size		Appr. Shpg. Wt.
30"x40"	8.19	10 lbs.
40"x40"	9.64	11 lbs.
37"x50"	11.89	14 lbs.
50"x50"	13.95	15 lbs.
45"x60"	17.95*	
52"x70"	20.95*	

Free with any tripod screen (please specify): **10 interesting 2x2 color slides or 8mm 100 foot carmel-Hollywood Film.**

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30"x40"	$6.95	50"x50"	$10.49
40"x40"	7.95	45"x60"	13.95*
37"x50"	9.49	52"x70"	16.95*

**These screens are shipped by us Express (freight costs collect) within U.S.*

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The biggest bargain in lenses ever offered! Yes, you get BOTH, the telephoto and the wideangle lens, for your 8mm movie camera at the unprecedented low price of $14.95—a tiny fraction of the regular price at which thousands were (and are still being) sold. Made by one of the best known manufacturers in the auxiliary lens field, these lenses are available for all Revere, Keystone, DeJur, Franklin, Universal and many B&H cameras.

The telephoto quadruples the size of the subject on your film, cuts effective distance right into half! The wideangle covers more than twice the area your normal lens does! Both lenses slip over or screw into your present lens, are instantly removable. Don't miss this unusual opportunity to widen the scope of your movie camera. State what camera and lens you have when ordering. *Shipping cost— .20*

8MM PROJECTION EDITING VIEWER $6.95

You'll more than ever enjoy editing your movies when you use this neat, all-metal electric editing viewer. It projects a clear image on the groundglass, makes possible viewing from a comfortable distance.

Outfit A: Viewer (above), pair of metal rewinds, splicer, reg. $17.95 $ 9.95

Outfit B: Viewer (above), pair of deluxe rewinds with breakes, splicer, reg. $21.50 10.95

Outfit C: Viewer (above), pair of deluxe rewinds with breakes, automatic dry splicer, metal base, reg. $25.95 16.95

Shipping Weights, Viewer 2 lbs., Outfit A 5 lbs., Outfit B 5 lbs., Outfit C 6 lbs.

8MM REELCHEST $2.98

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FREE with above chest: 2 8mm 200 ft. metal reels and cans

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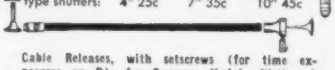
Here is your opportunity to obtain an extra long cable release for your camera—at almost one third of the usual price and for pennies more than a short release. State what camera you have when ordering. Any length, Leica model 25c extra. Other Cable Releases, for Compur and Kodak-type shutters: 4" 25c 7" 35c 10" 45c



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letters to the editor

Manhattan Nightmare

In your September issue on page 50, you ran a picture called "Manhattan Nightmare." You said that the picture was first taken while the cars were stopped, then the photographer waited until the cars started to move and shot fast. Well, the store fronts in the background must have been on wheels like the cars, because as you can see, they also moved. I hope you publish this. Thank you.

A. Planit
South Ozone Park, N. Y.

• We're glad to publish it—thank *you!* If you'd read just two more words of the caption, you'd have noticed the picture was a double exposure. Photographer Schlivek moved the camera; the buildings stayed right where they were!—Ed.

To Retouch or Not?

Once again, in your Letters column, the Retouching monster rears his ugly head. I thought the beast was dead, or at least locked up securely in the musty dusty picture-shops of small-town fuddy-duddy photographers! As for portraits, an intelligent sitter in this day and age ought to wax indignant when a retoucher armed with razor blades, sandpaper, graphite, and india ink threatens to remove the wisps of hair, blemishes and lines that give a face whatever character and human dignity it may have. And as for pictorials, a competent photographer can shoot his subject to avoid objectionable telephone wires and the like. He can keep his equipment clean so there won't be any need to hack at dust specks on negative or print. And he can be satisfied with the texture inherent in photographic papers, without hoking up his prints until they look like the rejected work of a first-year art student. So much for retouching: leave us pass just a *few* months without hearing of it again.

Nestor Field
Boston, Mass.

Mr. Walter Davino's outburst—"negative retouching is passe because people today have grown up and are no longer afraid of reality"—is not only a laugh but an idealistic pipe dream. I'd suggest that Mr. Davino read Anne J. Anthony's excellent book, *Negative and Print Retouching for the Amateur and Professional*, and get an insight on human nature that he apparently lacks. As for Annie's letter on hard-to-get retouching items, please let me say "Thank you" for your kindness.

Lynne Brighton
Hollywood, Calif.

I don't know why Walter Davino, in your September issue, has to be so hard on retouchers. Photography has at least some claim to being an art, doesn't it? And an artist never considers a canvas finished until he's added the last brush-stroke and improved on his work as much as possible. Why should this prerogative be denied to the photographer? I've made pictures for which the finished print was only comparable to the painter's preliminary sketching-in; the real job was done with a pen and a brush. And I'm proud of them, too!

Dorothea Sternveld
Indianapolis, Ind.

I am writing in regard to a letter from your reader, Walter Davino, in the September issue. I have been led to believe that retouching is a legitimate part of photography. Now one of my assistants even informs me it is illegal to retouch pictures entered in contests! I would greatly appreciate your informing me whether or not retouching is allowed in contests.

Don Beiner
Newark, N. J.

• You're welcome to retouch whenever you like, but if contest judges detect signs of your handiwork in the finished print, you probably won't win a prize! If you must tamper with negatives or prints, do it so it can't be detected.—Ed.

Our Wireless Flash

In the July issue of Popular Photography you published the diagram and illustrations of a wireless flash unit. I built

the unit in about four or five hours, and the cost was even lower than the article estimated. I enclose a picture of it.

I am a student at Louisiana Polytechnic Institute. Thanks for the swell article and please let there be more "build it yourself" articles.

Jesse T. Grice
Ruston, La.

Pinhole Information

Please be so kind as to direct me to an issue of Popular Photography which contained an article of importance to me. It appeared some years ago, and concerned photography with a pinhole combined with a meniscus lens. The effect was one of extreme depth of field and tolerable sharpness throughout the entire photograph.

As a professional, I would like to compliment you on the beautiful color reproductions that grace each issue. It is a fine magazine.

George Gelernt
Philadelphia, Pa.

• Thanks for the kind words. The article to which you refer was titled "Extreme Depth with a Pin-Hole Lens," and appeared on page 28 of the March 1943 issue of Popular Photography.—Ed.

Dowling's FIFTH AVENUE

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- Remember the Minox III, alone, includes ALL these features. When purchased from us, it is guaranteed both by Minox, Inc. (headquarters in New York) and by Dowling's Fifth Avenue. Don't confuse with used and superseded model Minox. Insist on the genuine Minox III—order from Dowling's Fifth Avenue TODAY. Price . . . complete with leather everready carrying case and chain . . . only $117.50 Cash or $11.75 Down.

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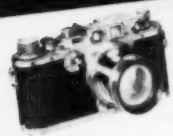

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camera clubs by Whit Hillyer

More About Club Bulletins

A VAST majority of camera clubs seem to put out bulletins at fairly regular intervals. Last month I mentioned some of the problems awaiting the editor of a club periodical. Now that I've examined and evaluated all the entries in the 1951 PSA club bulletin competition, as one of three judges, I can pass along some further observations which should interest clubbers everywhere.

First, I'm happy to report that almost invariably each entry I examined scored high on two important points. One was "stimulation to participation in club activities." The other was "service or usefulness to club" (calendars of events, reports of meetings, standings of contestants in print competition, etc.). An entry might be weak on physical appearance or editorial style, but the reader would know for sure what was coming up in the next few weeks—or months—what happened at the meeting he missed, and how he and the rest of the gang stacked up in the print competition.

But on some other counts a lot of club editors should be cautioned, especially where bulletins are batted out by mimeograph. A two-side mimeo job usually lack neatness and is not pleasing to read, particularly if the issue consists of two or more sheets stapled together. Also, the extra-long sheets used for some of the mimeo jobs are unwieldly and difficult to file, and should be replaced by standard 8½x11" stock wherever possible. (Sure, you get more copy on a king-size sheet, but the long format has a dismaying effect on the reader, something like a departmental report or a dodger for a grocery sale.)

Another thing—if you must use colored stock, choose yellow. Black text on yellow stock is easy to read. Most other paper colors afford very poor legibility. A very light green isn't bad, and it does make the bulletin stand out from a stack of mail—but some of the browns and blues practically defy you to read them.

In the last analysis, of course, the major factor is how well the bulletin serves the member-readers, not how well it rates in a beauty contest. But physical appearance should mean something to editor and reader alike, and it can be made quite presentable at low cost. A simple, straightforward mimeo job can be neat, legible, and informative simultaneously. And it needn't cost your gang any more than a messy effort whose very appearance renders the reader of a mind to take it or leave it.

Schools Making Good Approach

With the coming of autumn many camera clubs throughout the nation turn their attention to technical instruction for their members and for others who wish to study. We note each year an increase in the number of club schools in operation, and a general improvement in the type of instruction offered.

Boston Camera Club's perennial basic photography course this year is stressing the important art of finding and seeing the picture. A series of six 2½-hour Thursday evening sessions was to start October 18. *Tripod Club* of Central Branch YMCA, Brooklyn, N.Y., began its series of fourteen weekly sessions on September 14. This course is aimed particularly at beginners to whom each topic is being presented in terms of everyday experience, with as little use of technicalities as possible.

We have no fault to find with more advanced teaching where competent instruction is available and enough of the members are ready and willing to go ahead. But the more urgent need is for basic instruction among the beginners.

By two points, *Brooklyn Camera Club* recently won the first annual *Brooklyn Conference of Camera Clubs'* inter-club print competition nosing out *Tripod Camera Club*, 443 to 441. Shown above (left to right) are Dr. J. N. Levenson, who took top honors for best print, being congratulated by judges Victor Scales, Carl Sanchez, Jr., and Adolph Fassbender. Dr. Levenson's prize-winning print is shown at extreme left. Twenty honor prints from the competition were placed on display at the Brooklyn Public Library after the judging.

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You want 35-mm photography.
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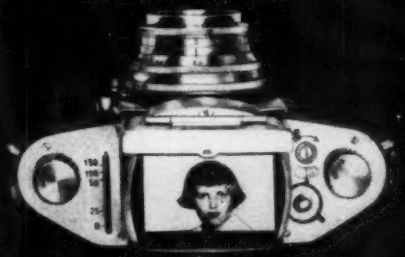
You want single-lens, reflex design.
You get it in the EXA!

You want combined film transport and shutter cocking.
You get it in the EXA!



AND

You want to compose your picture on a groundglass and see it until you trip the shutter.
You get it in the EXA!

You want a camera simple to operate with professional results.
You get it in the EXA!

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EXA, f2.9 Ludwig Meritar coated lens	$ 97.50*
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C. A. Steinheil Soehne, Munich, Germany. Factory representative in the U.S.A., Camera Specialty Co., Inc., 50 West 29th St., New York 1, N.Y.

Both of the organizations cited above are excellent examples of how the grass-roots method of nurturing the tyro can result in an active group of people whose collective ability leaves little to be desired.

Montanans Pick Print Subject in Unusual Manner

During a summer meeting of *Camera Club of Bozeman* (Mont.) members selected the sites at which they are to shoot contest subjects next January. Each member was blindfolded, given a thumbtack, and headed for a map of the city. The point at which the tack struck the map indicated the location to be used by the member for a shot this winter. A radius of half a block in any direction will be allowed. Members not present at this meeting had their locations picked for them by their blindfolded colleagues.

I'm anxious to see the photographic results of this routine. There can be some mighty chilly corners in Boseman during January!

We Hear . . .

THAT *Circle of Confusion Camera Club* (Tokyo, Japan) was addressed at some length by *Life* staffer David Douglas Duncan, who told the members about his successful use of Japanese lenses. The event got feature coverage in the Nippon *Times*, a copy of which came our way.

Organized in 1950, the *Photographic Association of Bengal* recently hung its first all-India salon of photography. The club made considerable progress in its first year of existence, and now boasts a membership of 100, a clubhouse suitably equipped for darkroom work and meetings, print portfolio circuits, and weekly programs. It publishes a quarterly called "Art and Photography," through which it has created contacts with many individual and other clubs inside India and elsewhere.

Correspondence will be welcomed by this active group of camerists. The address is: Hon. Secretary, The Photographic Association of Bengal, 18/5B, Dover street, Calcutta 29, India.

And the well-printed bulletin which is sent us from Britain by *Windlesham Camera Club* has an arresting line in boldface type above the masthead. It reads: "Challenge Our Cup-Holders."

Common Denominator department: *Cleveland Photographic Society* recently admitted three new members, whose occupations are, respectively: Metal plater in a factory, business machine operator, and fur storage specialist. Just for kicks, why not classify your own club's members by occupation? Then let me know about it and we might compare a few notes in this space.

They sure have fun at *Woodland* (Calif.) *Camera Forum* meetings. During one session a while back, a *Sierra Camera Club* visitor, DeWitt Bishop, challenged *Woodland* prexy Ralph Perkins to a time trial, object being to see who could get into a girdle quicker. The guest won. My vote would have gone to the gent who got *out* of the contraption more expeditiously. That seems to take a bit more doing. At least, so I understand.—

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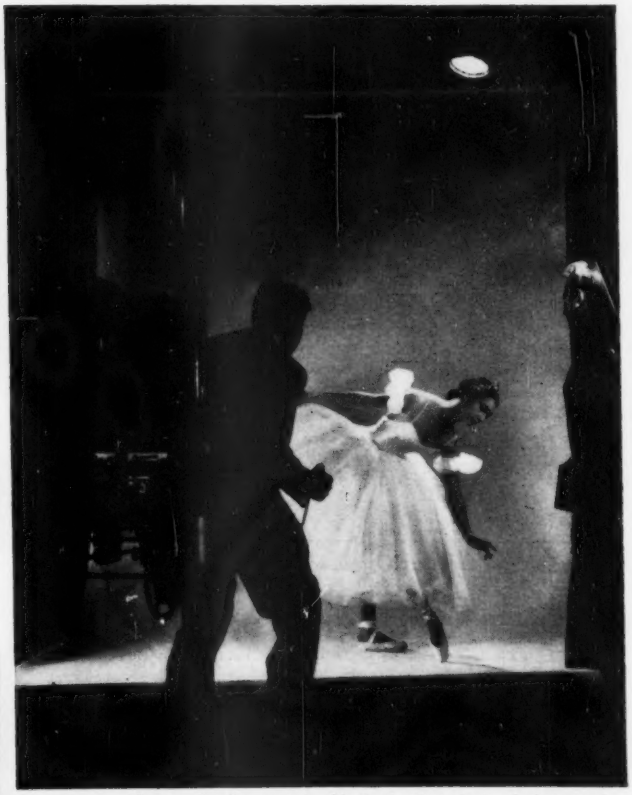

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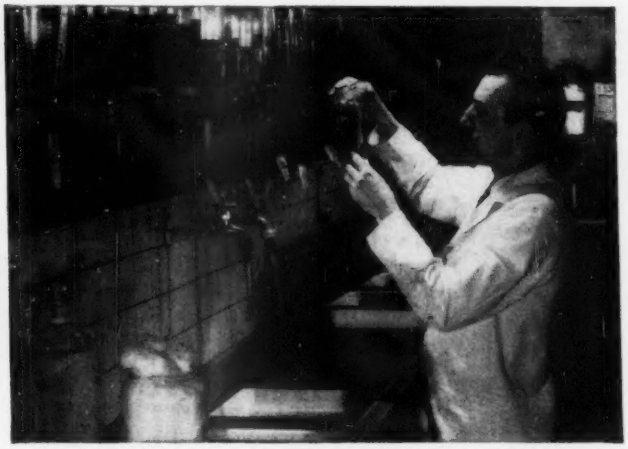

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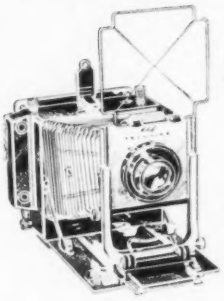

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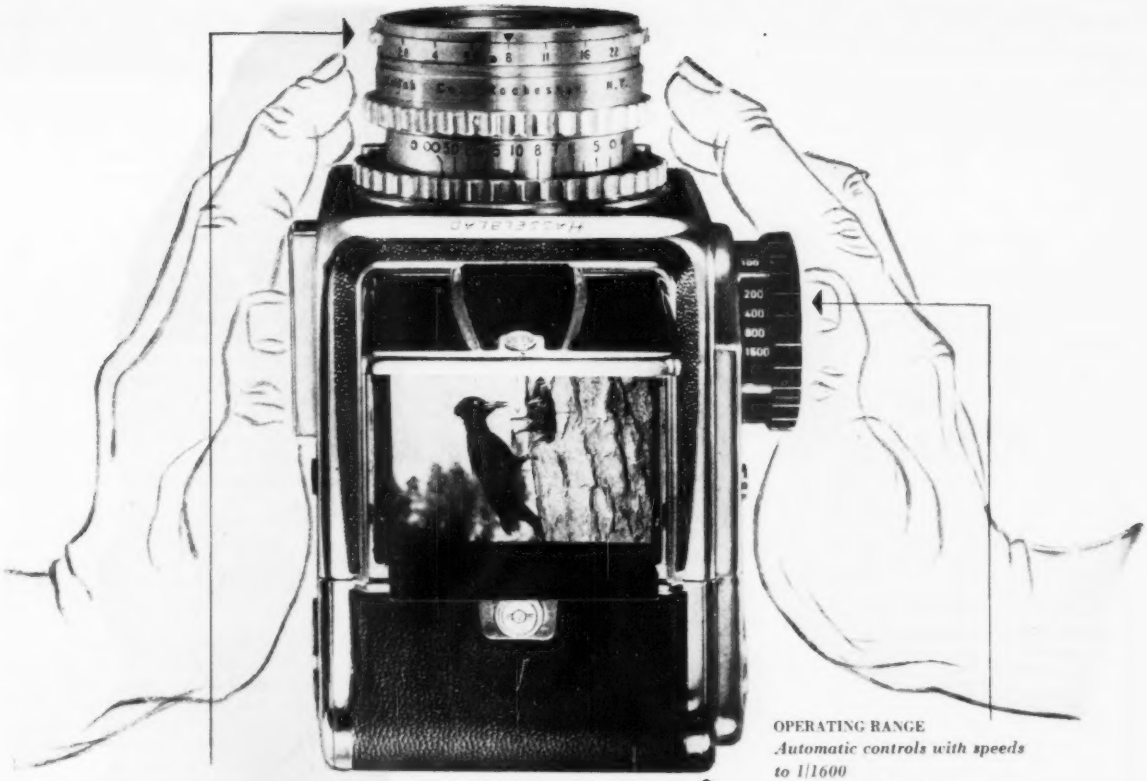

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Your HASSELBLAD comes equipped with the matchless Kodak Ektar Lumenized f 2.8 Lens, focal length — 80 mm. Accessory long-focus lenses 135 mm Kodak Ektar and 250 mm (10 in.) Zeiss Opton Sonnar. All lenses are quickly interchangeable.

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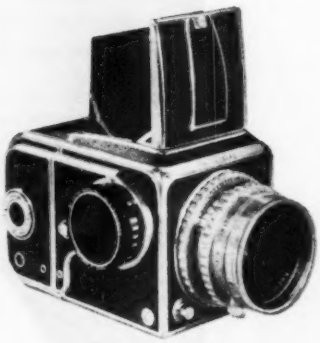

Every few years a new camera really makes history. Such a camera is the HASSELBLAD — the new Swedish "reflex". A few of its features are briefly noted here. Full appreciation of the refinements of design that give this camera unprecedented *built-in range* must, of course, await your personal inspection.

PRICES — The camera, with 80 mm Kodak Ektar f/2.8 Lens and 2¼ × 2¼ roll-film magazine, $ 548. Accessory 135mm Kodak Ektar f/3.5 Lens, $ 282, and 250mm (10 in.) Zeiss Opton Sonnar Lens f/4, $ 480. Prices include Federal Tax.

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for: Argus C3 — C2, Bolsey B2-C, Kodak 35RF, and Special telephoto Lenses for 35mm cameras with F2.7, 2.8, 2.9, 3.2, 3.5, 4, 4.5, 5.6 Lenses.
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For every popular 8mm Movie Camera (except Kodak). Brand new. Guaranteed. Require no compensation or increase in exposure. Each $7.95
Sam's Special Wide Angle and Telephoto Combination. Both for $14.95
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Imported 200X Precision scope in wooden case
ONLY $12.50
300X . . $22.50

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Fine coated optics
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5x7 Stainless Steel Trays .69 ea. 3 for $1.95
10 sec. Pocket Tripod, tilt top, open 48", closed 7". Free Case $13.50
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Finest quality, ground and polished optical glass. Red, Orange, Haze, Green, Yellow Blue, Type A.
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the press

By A. J. Ezickson

The Third District Coast Guard will establish restricted areas on the New York and Philadelphia waterfronts for security reasons, and only persons holding credentials will be permitted in them. These restricted areas will be in operation as soon as the Coast Guard can screen longshoremen, watchmen, photographers and regular waterfront employes. Press photographers will have to have Coast Guard credentials to take photographs in these restricted areas.

* * *

While covering graduation exercises at Yeshiva University in New York, George C. Brown, *Journal-American* staffer, was requesting the dignitaries to go through certain actions for the picture. James G. McDonald, former U. S. Ambassador to Israel, advised his friends to do as the photographer requested. He said: "This country is fast changing from a Democracy to a Photocracy."

* * *

At dawn on the Italo-Austrian frontier, AP staffer Jim Long stood waiting for army maneuvers to start. Suddenly he saw in a pile of photographic equipment a big camera case marked: "Frank Noel —AP." With Noel a prisoner of the Chinese Communists, that seemed worth looking into. Then Long looked again. This time he saw a smaller white tag marked: "James Pringle—AP." With Pringle still covering the Korean war, the mystery deepened. "Whose case is this?" Long asked. "It's mine," said Raoul Fornezza, AP's staff photographer in Milan. He'd "inherited" the case from Noel and Pringle from their Italian days.

* * *

Capital lensmen are saddened by the death of one of their co-workers, Aaron Miller, 30. A member of the White House News Photographers Association, Aaron won the grand prize in the 1950 WHNPA annual exhibit—a small boy and his dog near a fireplug, and titled "Not Now." He was a former *Washington Daily News* staffer. He resigned his post about a year and a half ago to go into free lance work.

* * *

Several weeks after the Kaesong, Korea, truce meetings had gotten under way, cameramen with the United Nations truce delegation could feel the growing hostility of the Communist soldiers, policemen and Koreans. Instead of smiles, as on previous days, the newsmen drew sullen glances. There was shy, frightened evasion of cameras and the ever-present Red soldiers and police shooed away the groups of curious. On one occasion, in a busy market place, an Army photographer, Edward Plummer of Mineral Wells, Tex., started to take a picture of a Chinese soldier buying produce. Spotting Plummer, the soldier slapped at the heavy revolver tied to his side. "He had his gun about three quarters of the way out," Plummer said. "I just kept talking to him. He kept his gun in the same position until I left."—

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Complete Color Service ★ Processing and Printing ★ Available Through America's Finest Photographic Stores

SHOW TIME AT HOME

STARRING

YOUR COLOR SLIDES AND YOUR NEW

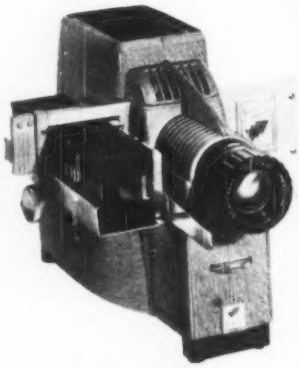
TDC ...THE WORLD'S MOST ADVANCED SLIDE PROJECTOR!

There's a TDC Model in Every Price Range from $29.75 to $170.00

POPULAR TDC *Mainliner 300*

$54.75 with manual slide changer. With SELECTRON-Semimatic Changer as shown, $64.75.

Sparkling performer for your home slide show! 300-watt *blower-cooled* projector . . . super-bright and super-cool for top performance in its field! Coated 5-inch f/3.5 anastigmat lens in helical focusing mount. Positive micro-tilt adjustment; broad stable base. Accepts all TDC SELECTRON Slide Changers and Selectrays.



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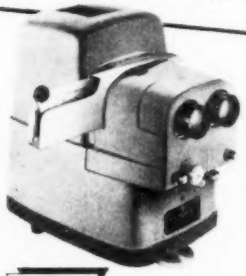
$79.50 Complete with SELECTRON-Semimatic Slide Changer—you need never touch a slide by hand!

Projects 1/3 to 1/2 *more light* than any other make of 500-watt projector! Extra-powerful, quiet blower for extreme coolness. Smoothly-contoured modern styling. Coated 5-inch f/3.5 anastigmat lens in large helical focusing barrel. Positive micro-tilt adjustment.



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Stereo projection with breath-taking realism! For all 35 mm. stereo slides . . . also standard 2x2 slides. Twin 500-watt light systems. Matched coated f/3.5 anastigmat lenses. With 5" lenses, **$165.00**

FREE slide booklet

Here's your guide to better color slides and projection, written by ace photo author, Rus Arnold, A.P.S.A. Up-to-the-minute and crammed with practical pointers. FREE with this coupon!

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Please rush me a FREE copy of your new booklet on slide photography and projection.

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For Picture Perfection — It's TDC Projection

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8MM FILM ASA 50 SPEED

FINE GRAIN PAN M'FRS CLOSE-OUT

Movies for Pennies! Probably the last of our stock and your last chance for this outstanding value.
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48 hour processing

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16mm Magazine Camera

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2½" F3.5 Lens	$14.50
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11" x 14" ENLARGING EASEL

ALL METAL, BRAND NEW

An outstanding buy in today's market. Made of the finest materials with easy sliding masking arms that help make pictures up to and including 11" x 14". Unconditionally guaranteed to your complete satisfaction.

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Save Money, Load your own

Standard Empty 16mm magazines in perfect condition. Complete with instructions.

75c ea.

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16MM BULK FILM

for Mag. Loading

Super X Reversal, Infra-Red Negative supplied on 50' core.

59c ea.

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Factory Fresh Daylight or Tungsten

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MFRS. SECONDS

New Stock, Fresh date
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Single Weight, S.M.
Contrast #1-2-3

100 sheet boxes **$1.69 ea.**
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DOUBLE WEIGHT
Glossy
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100 Sheet Boxes **$4.95 ea.**
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Kodak Bromide, Glossy Single Weight. On a special plasticized back for rapid processing. An outstanding buy from U.S. Surplus.

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Makes 900 Postcards

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Special 3 roll assortment
1 roll each #1-2-3

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20 Rolls (One Contr.) $35.00
(shpg wgt 100 lbs)

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Contrast #1-2-3
Makes 240 8" x 10"

ea. $2.95

Special 3 roll assortment
1 roll each #1-2-3

(shpg wgt 36 lbs) **$8.50**

12 Rolls (One Contr.) $33.00
(shpg wgt 100 lbs)

3⅜" x 200'

Contrast #1-2-3-4
Each makes 480 3" x 5"

ea. $1.65

2 rolls { Same / Contrast } **$2.95**

SPECIAL 8 ROLL Assortment
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27½' ROLLS 35MM FILM

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Notched and Numbered for 36 Exposures

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Unbelievable values for Guaranteed Film! Regularly up to 60c each roll. We save you as much as 75%!

127—Plenachrome

116 { Plenachrome, Pan-X / Super XX, Verichrome

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FULLY GUARANTEED

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2¼ x 3¼ PRESS CAMERA

All metal construction—accommodates lenses from 4" to 4½". Non-slip focusing knob. Hooded Ground Glass. $55.00 value.

SPECIAL PRICE without lens **$16.95**

ACCESSORIES FOR 2¼ x 3¼ PRESS CAMERA

4" F4.5 ctd Rapter, Synch Shutter	$29.95
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9x12CM CAMERA BODIES

Double Extension Ground Glass Focusing

We just received a new shipment of these fine used cameras. All are completely perfect and guaranteed to be in like new condition.

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*Also available for 6x9cm

KINE EXAKTA LENSES and ACCESSORIES BRAND NEW!

40mm F4.5 Zeiss	$95.00
40mm F4.5 Helioplan	49.50
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12" F4 Sonnar	295.00
Neck Strap	1.50
Giant Rel. Btn.	1.50
Prism Finder, I-II	35.00
Microscope Ad	12.50
Bay. Ext. Set	12.50
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Write for Complete Kine Exakta Booklet.

KODAK CONTACT PAPER

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1 gross boxes

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98c ea.

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35MM FILM U.S. SURPLUS FULLY GUARANTEED

Plus-X—Ultra Speed

100' Rolls..... **$1.50 ea.**
3 for $4.25

Daylight Bulk Film Loader $5.75
Empty 35mm Cartridges 12 for 1.00

SPECIAL 35MM OFFER

36 Exp. Cartridge Refills.
Fine Grain—Panchromatic—50W Daylight Loading into your own Kodak or similar empty standard cartridge. Also will fit into Leica, Contax and Robot casettes.

FULLY GUARANTEED
20 for $3.75 10 for **$1.98**
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ROLL FILM 127-120-620 116-616
Medium Speed. Fully Panchromatic. 50 Day. —32 Tung. Fine Grain. Manufactured by Kodak. *Fully equivalent to Plus X in speed and fine grain.* TREMENDOUS VALUE! ! ! Guaranteed. 10 rolls–$1.69, 20 rolls–$2.98, 40 rolls–$5.49.
(Shipping weight—10 rolls 1 pound)

WOW! WHAT A BUY!
16mmx100' KODAK SUPER X MOVIE FILM . . . FREE PROCESSING INCLUDED $2.98 each
(Shp. wgt.—1 lb. ea. 4-2 lbs.) 4 for $10.00

A REAL OFFER for 35mm color enthusiasts
35MM DAYLITE **ANSCO COLOR**
20 exposure metal cartridges reloaded with REGULAR Ansco Safety Color Film, ready for your camera. Not nitrate or movie ends. Shp. wgt. 8 ozs. 5 cartridges for $4.75

DRASTIC REDUCTION
4x5 Eastman Kodak Super XX Film Pack
$1.19 ea. . . 5 for $5.00 . . 10 for $9.00
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2 doz. 98¢ 8 doz. $3.00
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Tremendous Savings In Enlarging Paper
Kodabromide Enlarg. Paper 8"x10", F2-3, SW Glossy (Shp. wgt.—5 lbs per gross) $4.25 Gross 3 Gross—$12.00
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AZO, ANSCO, HALOID 4x5 SW Glossy Contact Paper ORIG. FACTORY PACK. Guar. (Shp. wgt—1 lb. per gross) F1, 2, 3, and 4 $ .98 gross 6 gross $4.95

35mm x 36 exp. FRAME NUMBERED SUPER XX, Finopan and Supreme Cartridges. 6 — $1.75, 12 — $3.00. 36 — $8.75. (Shp. wgt. — 2 lbs. per doz.)

BRAND NEW 16mm x 50' SUPER X MAGAZINES. LOADED BY EASTMAN KODAK PRICE INCLUDES FREE PROCESSING AND FAST, FREE RETURN SERVICE New Low Price! $2.39 ea. 2 for $4.50
(Shp. wgt.—1 lb. ea.)

★TERRIFIC 16mm FILM VALUE★
16mmx50' Kodak Super X Reversal Magazine Reloads (Blue Base). 12 rolls . . $6.25
(Shipping wgt.—2 lbs. per doz.)
Factory packed can of 28 rolls . . . $12.95
(Shp. wgt.—6 lbs. per can) 2 cans—$25 3 cans—$36
16mmx100' Super X (Blue Base) on camera spools. Develop ro Neg. or Reversal. Processing not incl. . . $1.95 ea., 4 for $6.75
(Shp. wgt.—1 lb. ea. 4-2 lbs.)
Empty Magazines 69¢ each 12 for $7.50. With any ★ purchase of 16mm film—12 empty mag. $6.00
(Shp. wgts.—1 lb. ea. 12-7 lbs.)

ANSCO 116 Plenachrome, tropic packed, Guaranteed Absolutely Perfect, 1 doz. rolls $2.00, 3 doz. $5.75
(Shp. wgts.—2 lbs. per doz. rolls)

! ! ! ATTENTION DOCTORS ! ! !
DuPont Hi-Speed X-Ray Film, 10 x12", Type 508
1 pkg. of 72 sheets—$9.50 3 pkgs. $24.50
(Shp. wgts.—1 pkg. 9 lbs.)

FRESH ANSCO COLOR FILM — DATED FULL YEAR AHEAD. Safety Base.
Daylight, Type 235 or Tungsten, Type 234
27½' . . $7.75 55' . . $15.00 100' . . $26.95
(Shipping weight 27½'—8 ozs. 55' or 100'—3 lbs.)

35mmx100' Super XX—$1.45 ea. ★ ★ 3 for $4.00
35mmx100' Supreme . . . $1.29 ea. 3 for $3.50
35mmx100' E.K. Dup. Positive—$1.59 ea. 3—$4.50
(Shipping weight—1 lb. per 100 ft.)

Fresh 35mm Film Here's A Real Value!
E.K. PLUS X—100' $2.50 — 36 exp. Frame No. Cartridges 12 for $3.50. 24 for $6.50
DuPONT 2-100' $1.75 — 36 exp. Frame No. Cartridges 12 for $2.75. 24 for $5.00
(Shipping weight — 100' 1 lb. — 12 Cartridges 1 lb.)

For Stereo Fans
★ ★ ★ ★ Beautiful Hollywood Full Color Stereo Slides. 5 Realist or Regular 35mm stereo slides with FREE Pocket Viewer, $1.98— 12 for $4.00 24 for $7.00
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tools and techniques

By NORMAN C. LIPTON

A round-up of recent developments and significant trends

Stereo Economy. One of the four stereo camera futures discussed off-the-record at the Atlantic City trade show of the MPDFA last March is now in production. It is the View-Master Personal Camera made by Sawyer's, Inc. of Portland, Oregon. The stereo pairs produced on 35-mm film by the new camera are extremely small. Their size and dimensions permit them to be mounted along the outer edge of the disk-shaped reels that fit Sawyers popular View-Master Stereoscope as well as Sawyer's two non-stereo projectors. Until now, the View-Master Stereoscope has been sold with sets of prepared stereo reels in which travel scenes, religious tableaux, patriotic scenes and many subjects covering a universe of interests were portrayed. Extension of personal stereo photography to Sawyer's unique viewing system is bound to result in substantial economies ranging from the cost of the viewer to that of the film. The manufacturer's brief announcement didn't specify the price of the new camera nor the release date, but it did state that the camera would have matched 25-mm anastigmat lenses with an *f*3.5 maximum aperture. Accessories will include a camera case, flash attachment, and a cutting and mounting kit to enable the user to prepare his own View-Master reels for use in the Stereoscope.

Magnetic Sound-on-Film. The ever-growing variety of magnetic-tape recorders that have been made available at photographic supply stores in recent years is an impressive tribute to the research conducted in this field by Marvin Camras at the Armour Research Foundation of the Illinois Institute of Technology. During the past year or so, we have been appreciating the first practical end-results of this simple, flexible, and inexpensive type of sound recording: "canned" slide-film lectures; home movies and 16-mm instructional films synchronized with magnetic-tape commentaries by means of ingenious coupling between the projector and tape recorder drive shafts; Hollywood movies with location sound effects and dialogue recorded on magnetic tape from which the conventional release-print sound track is eventually reproduced after suitable editing.

It wasn't until this year's summer convention of the NAVA (National Audio-Visual Association) in Chicago, however, that the most compelling application of magnetic sound to photography was revealed in practical form. Visitors to the convention saw completed engineering models of two radically new 16-mm magnetic sound projectors (suitable for magnetic as well as optical sound-track reproduction). They also saw Reeves Magnastripe, a magnetic oxide edge-coating material for 8, 16, and 35-mm movie film. Sound recorded on film striped with this material (either before or after exposure or photographic processing) can be reproduced by these new-type magnetic projectors.

An important feature of the new projectors is their ability to record sound on the oxide striping by means of a microphone plug-in arrangement while the film image is being projected. Until magnetic sound cameras which can record sound during the photographic exposure are made available, the sound-on-film record must be dubbed in while the finished film is being run through the projector. The producer has the choice of recording either a specially prepared commentary or sound effects reproduced on a separate magnetic tape (or wire) recorder at the time the photographic image was exposed on the movie film. An electronic erase head permits the magnetic sound track to be edited and corrected as many times as necessary to obtain a letter-perfect result.

Of the two magnetic projectors shown at the Chicago NAVA convention, only the RCA "400" has been scheduled for immediate production. Distribution to wholesale outlets had been set for late September and a tentative price of $850 had been quoted. The other manufacturer, Ampro, is planning to announce production and distribution plans in the near future according to their most recent correspondence. A third projection equipment manufacturer has approached the problem by designing a special adapter kit (tentatively priced at around $150) which will enable owners of their conventional sound projectors to handle film with magnetic oxide sound tracks.

Magnetic sound, recorded with reasonable care, is "cleaner," more faithful, more flexible and far less expensive than optical sound-on-film. We are at the beginning of a new era which is bound to see a marked increase in the use of sound films in industry, education, and entertainment.

A new photoelectric meter cell that should do away with the need for dual (daylight and tungsten) film exposure indexes is coming closer and closer to realization. This cell has been developed by the Photo Research Corporation of Burbank, California, and has been perfected to the point where it can be adapted to practically all of the photoelectric exposure meters now on the market. Karl Freund, president of PRC, advised us of his negotiations with meter manufacturers toward that end during his extended visit in the East late this past summer.

Where standard photoelectric cells in use today are far more sensitive to the cooler colors of the spectrum (violet, blue, and green) than to the yellows and reds (they're extremely sensitive to in-

New KALART Invention Keeps You From Missing Flash Pictures

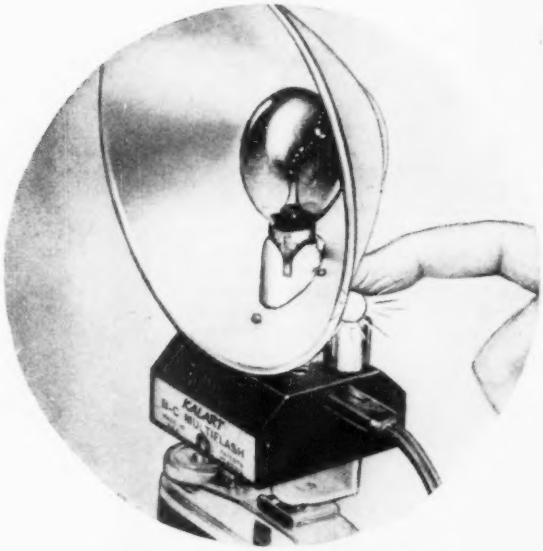
B-C Flash Unit with built-in test light shows — BEFORE YOU SHOOT — if flash lamps and batteries are O K

How often has this happened to you? You get set to take a flash picture – you trip the shutter – *and the lamp fails to flash.* You have missed your picture!

The new Kalart B-C Flash Unit eliminates the most common cause of flash failure – *weak batteries.* The flash lamps are fired not by batteries but by a tiny and powerful battery-capacitor power pack. This new superpower method of firing flash lamps shoots the current to them with a sudden wallop. It assures peak lamp performance – whether you are using one lamp, two lamps . . . or up to six lamps on long extension wires. And you can forget about replacing batteries for two years or longer.

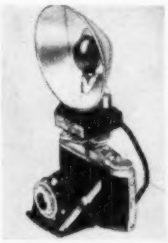
In addition, the Kalart B-C Flash Unit is the *only flash equipment* that enables you to make sure – *before you trip the shutter* – that *every lamp* is good regardless of whether you are using single flash, two lamps or a six-lamp extension hookup.

This feature alone makes Kalart B-C Flash worth several times its cost. A leading magazine has already provided its entire staff of more than 20 photographers with Kalart B-C Units. Figure it out for yourself. A Kalart B-C Flash Unit will save so many missed pictures and wasted films that it is a positive economy to get one now. Ask your dealer for demonstration.



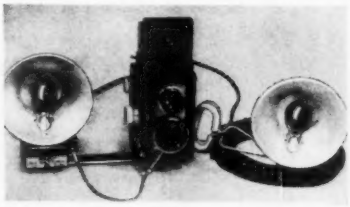
The light that says "OK"

Test light is located directly back of reflector – and is ready to use instantly. Simply press it down *after* inserting flash lamp. A brief flash from test light is a signal that battery and flash lamps are good.

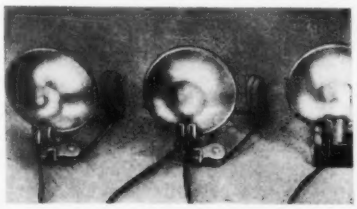


PRICE
$15.95
complete including battery and capacitor

Kalart B-C Flash Unit on Agfa Ventura. For cameras with accessory mounting shoes, Unit is supplied with correct style bracket. For other cameras, a rubber-cushioned attaching bracket that screws into tripod socket is supplied. Unit for cameras with built-in sync, $15.95, complete.



Kalart B-C Flash Unit and one Extension Unit on reflex camera. Correct connecting cords or synchronizers are available for all types of cameras—with or without built-in sync. A Kalart B-C Flash Unit *and* Extension Unit *cost less* than many 3-cell battery flash guns alone.



Kalart B-C Flash Unit with two Extension Units. Each unit is wired in series and provided with patent-pending "Self-closing" outlets. This assures positive synchronization of 2 to 6 lamps; also permits firing only one lamp in Flash Unit when not using extension flash.

SEND A PICTURE WITH EVERY LETTER

KALART

Kalart Speed Flash • Kalart Focuspot
Kalart Synchronized Range Finder
Craig Movie Editing Equipment • Kalart II Camera

FREE **Send for this 16-page illustrated booklet today and get the full facts on how to put an end to flash failures.**

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Please send free booklet on Kalart B-C Flash Units.

Name.....
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visible ultraviolet radiations as well), the new PRC cell is equally responsive to red and blue. Like the human eye, its peak sensitivity is in the green-yellow region of the spectrum, and its response to invisible ultraviolet radiations is moderate. Consequently, where standard meter cells require two different exposure indexes to correlate the responses of the meter and the film to daylight (rich in blue and deficient in red) and tungsten lighting (rich in red and deficient in blue), the new cell does the job with just one exposure index (or film speed rating). The exposure meter readings produced by daylight and tungsten sources will differ by just about the same amount that panchromatic film differs in its response to the respective types of illumination.

Mr. Freund demonstrated a kit-full of new equipment now being perfected and groomed for the market by PRC. They included: (1) a visually aimed photoelectric tele-spot meter capable of measuring the brightness of a 1-inch diameter circle at a distance of 10 feet; (2) a multipurpose light meter capable of measuring incident and reflected light intensities as well as color temperature; (3) a new pair of Leica and Contax flash synchronizers operating on the shutter release buttons of the respective cameras with the action made uniform by a detent mechanism.

Trends at "Photo-Kina." From our good friends in the trade and from published reports abroad, we have pieced together an impression of the recent Photo-Kina Fair at Cologne, Germany, which marks it as one of the most important and interesting public events in photography. The Fair, which took place in the short space of 10 days, was visited by more than 100,000 paying visitors plus thousands of representatives from the photographic industry all over the world. (POPULAR PHOTOGRAPHY participated with an exhibition of prize-winning prints from recent POPULAR PHOTOGRAPHY Picture Contests.) The display area, for example, could be compared to that occupied by the portion of the 1st International Trade Fair on the Navy Pier in Chicago during the summer of 1950. The mall occupied by Agfa Camerawerk, the largest single exhibitor, included a flower garden and could comfortably accommodate several hundred people at the same time. Although German photographic industry both East and West of the "Iron Curtain" was most completely represented of all at Photo-Kina, the rest of the photographic world participated in full force. Cinefot International of New York headed by Paul Cherney, did a yeoman job of presenting the pride of American achievement at the event.

A large number of the products displayed at Cologne have already been described here and are now on the American market. Certain few innovations deserve further mention:

. . . A brand-new Leitz 16-mm projector—the first serious entry by this company in the motion-picture field.

. . . An electronic flash outfit powered by a 1200-volt dry battery capable of

(*Continued on page* 154)

"Success in **Photography** can be attained only by sound and thorough **training**"

Quote from Josef Schneider

LEARN-BY-DOING AT N.Y.I.'S FAMOUS N. Y. SCHOOL

For over 42 years, N.Y.I. has been training ambitious men and women for careers in professional photography. This is the school that's famous for its LEARN-BY-DOING methods—and you're behind the cameras working with professional equipment and glamorous models from the very first day.

Baby Photography is just one phase of our Complete courses in Fashion, Advertising, Commercial, Portrait, News and Natural Color Photography. Splendid up-to-date equipment. The N.Y.I. faculty comprises distinguished professional photographers, each a specialist in his own field—all equipped to give INDIVIDUALIZED attention to your own special needs. Day and evening courses. Co-educational.

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If you cannot attend our Resident School, turn your hidden talent into a profitable career by studying at home in leisure hours. The N.Y.I. Home Study Course is based upon our famous LEARN-BY-DOING methods. It is planned to give you *individualized supervision, valuable knowledge* and *practical assignments* which speed you on the way to a new career, without taking you away from your present job or family responsibilities. Outstanding photographic authorities have prepared each easy-to-understand lesson. Profusely illustrated, clearly printed and with fine bindings, this course is your perfect training aid and a lifetime Reference Library

The N.Y.I. Home Study Course in photography presents the material so clearly, the step-by-step progress is so simple to understand . . . that it is almost the equivalent of on-the-spot training!

Josef Schneider, foremost child photographer, says:

"You can earn a good income in Baby Photography"

Today, Josef Schneider is absolutely tops in the field of baby photography and his exciting work has tremendous national appeal. His clients include Gerber Baby Foods, Squibbs, Heinz, Look Magazine, Macy's, dozens of insurance companies and family magazines—and thousands of Mothers. Since he started eleven years ago, he has photographed over 20,000 babies.

Josef Schneider says, "Skill and competence in the field of baby photography can bring recognition . . . and big money. But," continues Joe, "success can be attained only by *sound and thorough training.*"

Every community in the country will support a good baby photographer. But success and recognition demand the kind of skill and knowledge that comes only through down-to-earth training.

Advertising agencies pay as high as $200, $300 and more for top-notch baby shots to advertise a large variety of products, ranging from soap to soup to automobiles!

Success demands "Know-How"... train at N.Y.I.

America's Oldest and Largest Photography School and the Most Thorough

The demand for good baby pictures is universal . . . there is an endless range of customers, including proud parents, baby product manufacturers, advertising agencies, magazine and book publishers and a host of others.

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PENN'S

LET'S TRADE!

Nobody . . . and we do mean nobody . . . beats PENN on a Trade-In Deal!

TRADE

Your Leica IIIc for a Brand New

LEICA IIIf

with Synchro Flash Shutter

HERE'S THE DEAL:

If your Leica IIIc is in good operating condition, and of good appearance, we will accept it (less lens) in Trade for a Brand New LEICA IIIf (less lens), at a difference in cost to you of only... **$95.00**

The LEICA IIIf with Summitar f2 Lens is regularly priced at $385.00

TRADE

Your Kodak 35 with Rangefinder for a Brand New

KODAK SIGNET 35

HERE'S THE DEAL:

If your Kodak 35 with Rangefinder is in good operating condition, and of good appearance, and is equipped with coated lens and flash shutter, we will accept in in Trade for a Brand New KODAK SIGNET 35, at a difference in cost to you of only... **$39.50**

The Kodak Signet 35 is regularly priced at $95.00

TRADE

Your Kine Exakta I or II for a Brand New

KINE EXAKTA V

HERE ARE THE DEALS:

If your Kine Exakta I is in good operating condition, and of good appearance, we will accept it (less lens) in Trade for a Brand New KINE EXAKTA V (less lens), at a difference in cost to you of only... **$89.50**

If your Kine Exakta II is in good operating condition, and of good appearance, we will accept it (less lens) in Trade for a Brand New KINE EXAKTA V (less lens), at a difference in cost to you of only... **$69.50**

The Kine Exakta V is regularly priced:
With Coated Tessar f3.5 ..... $199.50
With Coated Biotar f2 ..... $313.75

TRADE

Your Minox II for Brand New

MINOX III

HERE'S THE DEAL:

If your MINOX II bears a serial number of 23,000, or over, and is in good operating condition, and of good appearance, we will accept it in Trade for a Brand New MINOX III, with case and measuring chain, at a difference in cost to you of only... **$39.95**

The MINOX III is regularly priced at $117.50

IN FACT — we'll accept any PHOTO EQUIPMENT in TRADE, and make a Generous TRADE-IN Allowance towards other purchases. There's a 15-Day Money-Back Trial Guarantee and a One-Year FREE Service Bond covering all operational equipment.

Brand New German Made 35mm Camera

REGULA II

Built-in Flash Synchronization; Coated f3.5 Lens. One-Year Guarantee

$50.00 Value Penn-Priced **$32.50**

- Synchro Pronter-S Shutter
- Speeds: 1 to 1/300 sec. and B
- Body Release and Double Exposure Prevention
- Delayed Action
- Brilliant Eye-level Optical Finder
- Uses standard 35mm B & W or color film

Heiland Synchro Mite Flash..... **$9.95**

From Germany

FAMOUS MAKE TWIN LENS REFLEX Focusing Camera

ONLY **$39.95**

With Leather Eveready Case and Flash Unit

Coated MERITAR f3.5 lens • SYNCHRO FLASH Shutter • SPEEDS, 1/25, 1/50, 1/100 and "B" • Self-Erecting Viewing Hood • Uses Standard 120 film, 12 exposures, 2¼ x 2¼.

USED... But Guaranteed LIKE NEW!

OMEGA D2

4x5 Enlarger

PENN-SPECIAL

. . and a real buy at

$129.50

BRAND NEW!

BOLSEY B2

COMBINATION OFFER

35MM CAMERA plus... Eveready Case, Flash Unit, Lens Hood and Filter Holder, and Three (3) Filters.

TOTAL VALUE $101.85

Yours COMPLETE for Only..... **$79.50**

Camera alone priced at $73.50

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. . . One Year Guarantee!

LATEST MODEL **ZEISS CAMERAS**

ZEISS CONTESSA

35mm Camera

With built-in exposure meter and built-in flash synchronization

If New $195 Penn-Priced $124.50

- "T" Coated TESSAR f2.8 Lens
- Synchro Compur Rapid Shutter
- Speeds, 1 to 1/500 sec.
- Coupled Rangefinder

New Leather Eveready Case, $8.50

FAMOUS **ZEISS SUPER IKONTA B**

2¼ x 2¼ Camera

Built-in Flash Synchronization

If New $232.00 Penn-Priced $159.50

- "T" Coated TESSAR f2.8 Lens
- Synchro Compur Rapid Shutter
- Speeds, 1 to 1/400 sec.
- Coupled Rangefinder

Zeiss CONTAX IIA

$242.50

With "T" Coated SONNAR f2 Lens

Zeiss CONTAX II S

$259.50

With Delayed Action and Built-in Flash Synchronization

- F2 Factory Coated BIOTAR
- Direct Eye-level Focusing with the Famous Zeiss Prisma-Scope for lenses of any focal length, at any distance, far or near.

Pre-Christmas Events

Synchronizes Your LEICA for Flash!

For use with any Flash Unit with PC cord. Works with speedlights, quickly and easily attached. Specify model of camera.

GEISS-KONTAKT

Reg. $19.50 Only $8.95

Complete Outfit. Consisting of GEISS-KONTAKT and Folding Flash Unit.

Reg. $27.90 Penn-Special, $15.95

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From Our Rental Department!

USED ... but Guaranteed in New Condition. Latest Models.

AMPRO 731
Reg. $119.50 ... Special, $84.50

REVERE T-100
Reg. $169.50 ..... Special, $109.00

PENTRON 2-Speed
Reg. $179.50 ..... Special, $99.50

USED ... But Guaranteed

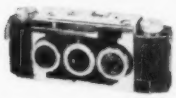
KODAK 35
with Rangefinder
Regularly $86.75

PENN-SPECIAL $49.50

Coated f3.5 Kodak lens. Synchro flash shutter. Coupled rangefinder.

Leather Eveready Case, $7.50

USED ... But Guaranteed LIKE NEW!



STEREO REALIST

Penn-Priced $109.50

For true-to-life THIRD DIMENSIONAL pictures, breathtaking in their beauty. Versatile ... economical ... and a REAL BUY at this price.

Automatic ROLLEIFLEX

Penn-Special $149.50
Used

- f3.5 Coated TESSAR Lens
- Compur Rapid Shutter
- Eyelevel Sportsfinder

The King of Stereos!

Imported from France

RICHARD Verascope 40

Stereo Camera

Brand New Penn-Special $219.50
List $385.00

- 30% Larger Picture on 35mm Film
- Two Cameras in One—Automatic finger-tip conversion from single frame 35mm to stero and back again
- Ctd. fully corrected BERTHIOT f3.5 to f16 lens.

BRAND NEW ARGUS C3 Combination

At a PENN-SPECIAL PRICE!

- Brand New ARGUS C3 Camera
- Leather Eveready Case
- Flash Unit
- Sun Shade
- Filter Holder, 3 Filters (Color, Your Choice)
- 1 Roll 36-exp. Film
- 20 Flash Bulbs
- Texhyde Gadget Bag

Total Value, $92.50 ... Yours COMPLETE for only $69.50

Brand New 35mm KINE EXAKTA I

Single Lens Reflex

With Huge Meyer f2.9 Ctd. Lens PENN-SPECIAL $129.50

- Built-in flash synchro
- Speeds, 12 sec. to 1 1000th

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Please send me the following .....

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PENN CAMERA

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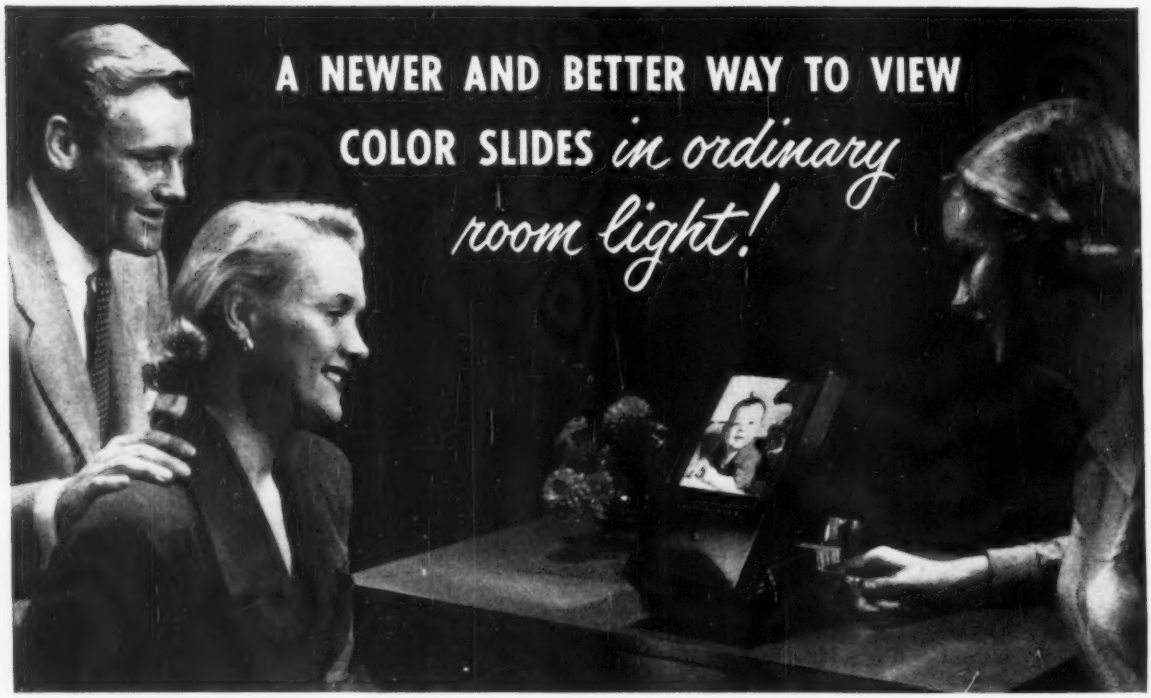
"FAMOUS FOR FAIRNESS"



Never before AN AUTOMATIC, PORTABLE PROJECTION-VIEWER LIKE IT AT SO LOW, LOW A PRICE

fR PORT·A·VIEW

49.95

Leather and plastic carrying cases in Holster and Eveready type available

Never before have your 35 mm color slides given you such pleasure . . . because never before have you shown them so conveniently, so beautifully, so effectively. Here they are now enlarged more than 4½ times; clear, brilliant with their original delicacy of shading and color tone. And with the PORT-A-VIEW all you have to do is: open it — and the TV-type screen in the cover lights up to give you smooth, brilliant pictures at the mere touch of a finger. COMPARE the FR PORT-A-VIEW with *any* projection-viewer at *any* price. You'll find: 1. that any projection-viewer comparable in price does not have its features; 2. that any projection-viewer with comparable features costs much more; 3. that the FR PORT-A-VIEW is the finest projection-viewer value your money can buy.

Write for colorful folder, Dept. PP 11.

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These Famous Brands Tell You the Burke & James Story!

One outstanding quality in all . . . PRECISION! *Precision* craftsmanship that means PRECISION PERFORMANCE! Each brand is foremost in the field, the brands unhesitatingly recommended by your photographic dealer. These are Burke & James brands, with more than half a century of leadership in engineering, product development and refinement built into every minute detail. *You* can depend on Burke & James brands for *PRECISION PERFORMANCE.*

If your dealer cannot supply your needs, write for information, giving dealer's name.

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REFLEX CAMERA

America's largest-selling reflex camera! For portraits, sports pictures and trick shots, as well as every-day shooting. High speed shutters. Perfectly synchronized coated twin Wollensak Anastigmat lenses. Viewing hood equipped with magnifier and sports finder. Precision Built for Perfect Performance.

As low as..... **$76.98**

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New, improved model of your "Basic Camera", lowest-priced *quality* 4" x 5" Press Camera you can buy! Made of light-weight Aerometal covered with genuine leather. Rise and tilt front; side swing adjustment; revolving back; drop bed. All adjustments you need to take pictures under any conditions. Double extension bellows. Self-aligning and rigid telescoping track. Precision Built for Perfect Performance.

Less lens..... **$84.50**

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GLOSSY PRINT DRYER

Here is the original, double-duty type reversible speed dryer that saves time, money, and your valuable prints! Thermostatic head control assures perfect, "crackless" drying — glossy or matte prints in three minutes. Two 19" x 25" Platen Surfaces. Handles up to 750 2¼"x3¼" prints per hour . . . all with the perfect, professional high-gloss. Over-heating is eliminated, with uniform, flat, even production thermostatically controlled throughout. Heavy-duty REXO can be used continuously day and night . . . quickly pays for itself in time saved and elimination of spoilage.

Complete, less squeegee plate..... **$52.00** AC, 110 volt.

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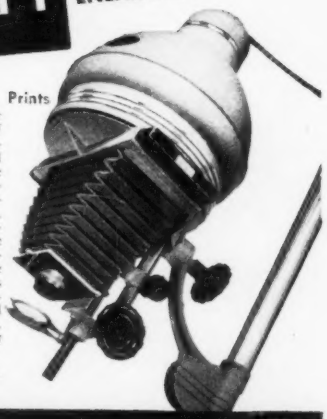

For Prize "Blue Ribbon" Prints

Start with the *best*. A Solar is a lifetime investment of the finest precision performance equipment — engineered by experts who know the needs of amateurs and professionals. The newest developments in optical systems, adjustments, nonactinic baseboards, dustless negative carriers and operating efficiency are all built into the Solar. To enjoy the thrills of making Prize "Blue Ribbon" prints, get acquainted with Solar Enlargers today. There's a model for every need from

$66.50 to $250.00.

FREE! New 74-Page "Burke & James 54th Annual Catalog", containing over 3,000 items to help you take and make better pictures. Limited amount available. Just off the press, so write today, giving age and occupation.

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Burke & James, Inc.

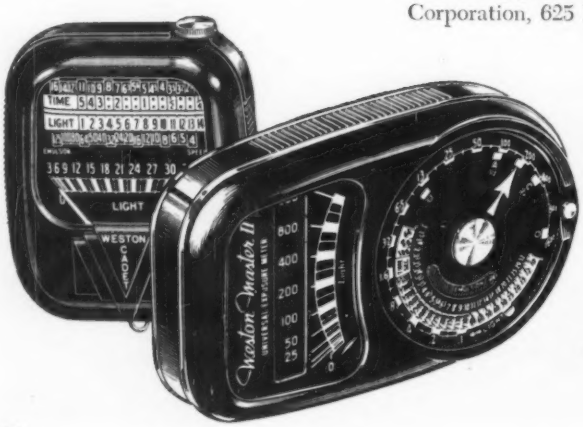
FINE PHOTOGRAPHIC EQUIPMENT FOR OVER 53 YEARS

321 S. Wabash Ave., Chicago 4, Ill. U.S.A.

As DAYS GROW SHORT...

more than ever YOU'LL NEED A WESTON

Short days are critical exposure days. Days of quickly changing light . . . long, deep shadows . . . bewildering snow reflections. All *challenging* light problems . . . unless you have a WESTON to supply the correct exposure facts. With the exclusive exposure dial on the Master, for example, you'll make the existing light do your bidding, short days or long. You'll simply pre-select the exact results you want in your pictures. The MASTER is the outstanding exposure meter, noted for its versatility and supreme results. The CADET provides equal dependability in compact form. At leading photo dealers. WESTON Electrical Instrument Corporation, 625 Frelinghuysen Ave., Newark 5, N. J.



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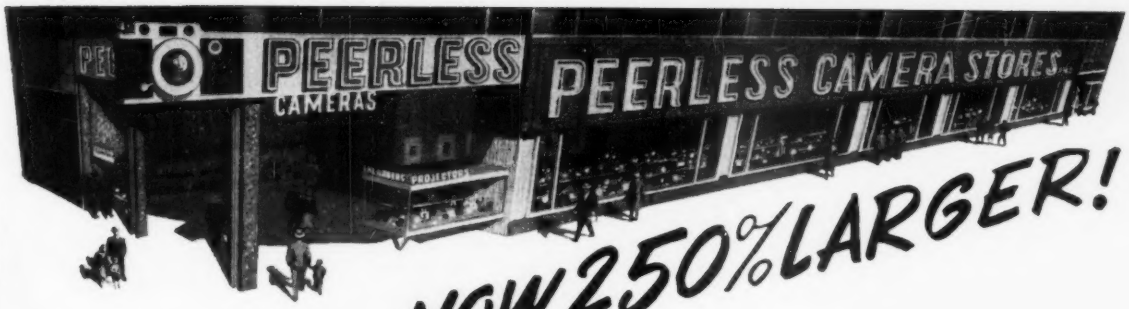
EXPOSURE METER

"The Meter Most Photographers Use"

None too early to plan your gift needs. A WESTON will thrill any camera user. Better ask your dealer to reserve one now, and avoid last-minute disappointment.



Peerless NOW 250% LARGER!

GRAND OPENING SALE!

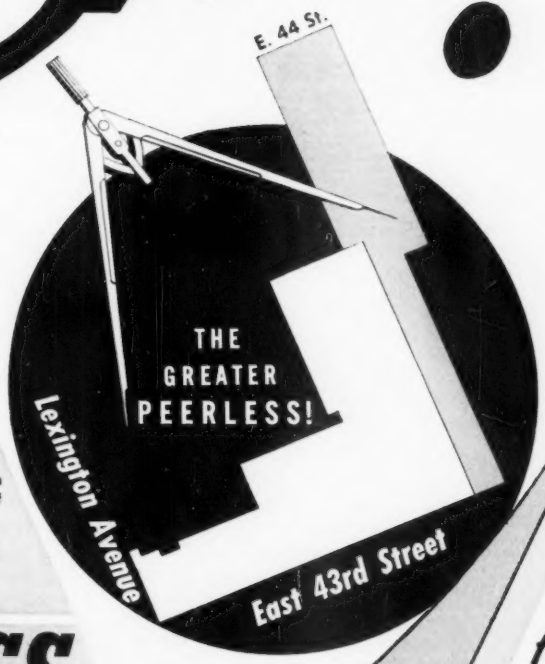
FOR A LIMITED TIME ONLY...

Opening Special!

BRAND NEW!
FLASH SYNCHRONIZED
PRAKTICA
35mm REFLEX CAMERA
ZEISS T-Coated f3.5 TESSAR LENS
74.50

Shpg. Wt. 5 lbs.

- Focal Plane Shutter with Slow and Fast Speeds of ½ to 1/500 second
- Micro Grain Focusing Screen
- Interchangeable Lens System



See the next 2 pages for OPENING SALE VALUES!

PEERLESS CAMERA STORES

415 LEXINGTON AVE., NEW YORK 17, N.Y.
Opposite Grand Central Terminal

Peerless NOW 250% LARGER!

Grand Opening SALE!

CELEBRATING the OPENING of OUR NEW ADDITION!

A GREATER PEERLESS Means GREATER SAVINGS! GREATER SERVICE! GREATER SELECTION!

NOW...More Than Ever Before...YOU PAY LESS at PEERLESS!

Important! All Opening Sale Prices effective until next issue of this Magazine! Orders Postmarked up to Midnight, November 10, will be honored at these low prices!

SAVE $100.75!

BRAND NEW!

4x5 SPEED GRAPHIC PRESS OUTFIT

4x5 PACEMAKER SPEED GRAPHIC CAMERA with Graphic Back 150.00

PLUS 135mm f4.7 Coated Wollensak Raptar Lens in Rapax Shutter

PLUS 3 Cell Flashgun Complete with Reflector, Solenoid, Cord, installed

PLUS Koiart Coupled Rangefinder, Installed

PLUS 4 x 5 Film Pack Adapter

PLUS Lens Hood – Filter Holder and Set of 4 Optical Glass Filters

PLUS Press Carrying Case

TOTAL VALUE 349.75

You Save 100.75

Opening Sale Price 249.00

Shpg. Wt. 25 lbs.

Save $93.75! • BRAND NEW!

Factory Guaranteed!

ROBOT II

35 mm Rapid Sequence Camera with f2.8 Coated Xenar Lens

Opening Sale Price 61.50

Shpg. Wt. 6 lbs. LIST $155.25

- 24 Pictures on each Winding
- Rapid Sequence Film Transport
- Built-in Flash Synchronization
- Interchangeable Lens System
- Luxurious Satin-Chrome Finish

35mm CAMERAS

	New	Used
ARGUS A, f4.5 Anastigmat		9.89
ARGUS A2, f4.5, bilt-in mtr.		14.79
BALDINETTE ¢f3.5* Schneider, Latest FULL-SYNCHRO M-X	49.95	
BANTAM FLASH Kodak, ¢f4.5*	57.50	36.98
BANTAM Kodak, f4.5		24.79
BANTAM SPC'L Kodak, f2, RF		98.89
BOLSEY E, ¢f3.2*	109.50	78.89
BOLSEY B2, ¢f3.2*, RF	73.50	46.98
CONTESSA FULL M-X SYNCHRO, ¢f2.8* Zeiss Tessar, RF, bilt-in exp. mtr.	195.00	139.79
KODAK 35, f4.5 Anastigmat		23.89
KODAK 35, ¢f3.5*, RF, NEW	64.89	
PONY 135 Kodak, ¢f4.5*	36.75	26.39
PONY 828 Kodak, ¢f4.5*	32.00	21.89
RETINA Kodak, f3.5		31.89
SIGNET 35 Kodak, ¢f3.5 RF	95.00	68.89
STEREO REALIST, ¢f3.5*, RF	162.50	128.89
VITO II, Voigtl, ¢f3.5*	54.50	31.89

Average Shipping Weight 5 lbs.

LEICA AND CONTAX

	New	Used
LEICA C, f3.5 Elmar		58.89
LEICA D, f3.5 Elmar, RF		77.98
LEICA IIIA, f2 Summar, RF		129.89
LEICA IIIc, f2 Summar, RF	259.00	149.89
LEICA IIIc, f2 Summitar, RF		179.89
LEICA IIIc, ¢f2 Summitar, RF (Serial No. over 500,000)	350.00	308.89
CONTAX I, f3.5 Tessar, RF		68.89
CONTAX II, f2.8 Tessar, RF		128.89
CONTAX II, f2 Sonnar, RF		134.79
CONTAX III, f2 Sonnar, RF		168.89
CONTAX IIA, ¢f1.5 Sonnar RF*	476.00	269.89

Average Shipping Weight 5 lbs.

LEICA ACCESSORIES

	New	Used
28mm ¢f6.3 Hektor wide angl.	112.00	78.89
35mm f3.5 Elmar wide angle		57.79
85mm ¢f1.5 Summarex tele	472.50	
90mm f4 Elmar telephoto		68.89
127mm ¢f4.5 Wollensak tele	126.00	78.89
135mm f4.5 Elmar telephoto		68.89
VIDOM Universal Leica Finder		23.98
IMARECT Finder 35mm-135mm	49.00	34.89
FOCASLIDE Copy Attachment (state camera serial number)	45.88	28.89
OMNICA DeLuxe Fitted Case for Leica, Lenses, Accessories	60.00	

Average Shipping Weight 3 lbs.

...FOR LEICA OWNERS!

Tremendous Savings on these Genuine COATED LEICA LENSES in lightweight, chrome finish! Only a LIMITED SUPPLY! Used, but look and perform like New!

	You Save	Sale Price
35mm f3.5 Summaron	43.70	79.50
90mm f4 Elmar	48.05	84.95
135mm f4.5 Hektor	45.50	129.50
200mm f4.5 Telyt, complete with Reflex Housing	167.00	225.00

...FOR CONTAX OWNERS!

NOW is the Time to Buy at these Sensational Savings! We have obtained a LIMITED NUMBER of the Latest T-COATED CONTAX LENSES! They are Used, but look and perform like New!

	You Save	Sale Price
35mm f2.8 Biogon	140.30	119.50
85mm f2 Sonnar	154.50	134.50
135mm f4 Sonnar	88.50	109.50

SPECIAL! BRAND NEW!

2 x 2 SLIDE PROJECTOR

and 26 famous A to Z ALPHABET SLIDES

Opening Sale Price 6.89

LIST $16.90 Shpg. Wt. 7 lbs.

- Takes 35mm and Bantam Slides
- 100 Watt Projection Lamp
- Double Condensers

Save $35.61

Just 26! Demonstrator Models!

NEW, 1951

AMPRO (MODEL 731) TAPE RECORDER

Complete with Microphone • Take-Up Reel, Pickup Cord • Roll of Tape

Opening Sale Price . . . 83.89 LIST $119.50!

The recording sensation! For Home! Office! Schools! Clubs! Every Machine equal to new!

SAVE $21.55!

Latest Model! List $59.50

ARGUS C3 OUTFIT

COATED f3.5 LENS

Opening Sale Price . . 37.89 used

Shpg. Wt. 7 lbs.

- Speeds from 1 10 to 1 300 sec.
- Coupled Rangefinder
- Synchro Flashgun

REFLEX CAMERAS

	New	Used
ANSCO REFLEX, ¢f3.5		117.79
BOLSEY C, ¢f3.2*	109.50	78.89
ARGOFLEX EF, ¢f4.5*,	59.50	38.89
CIROFLEX C, ¢f3.5 Rapax	99.45	57.79
CIROFLEX D, ¢f3.5* Alphax	89.50	68.89
Kodak DUAFLEX, f8*	22.95	13.98
Kodak REFLEX II, ¢f3.5*		98.89
ROLLEICORD, f3.5 Zeiss		78.89
ROLLEICORD IIa, ¢f3.5 Xenar		93.79
ROLLEICORD TWIN-BACK III, ¢f3.5* Zeiss, with case	149.50	
ROLLEICORD TWIN-BACK III, ¢f3.5* Xenar, with case	160.00	
AUTO ROLLEIFLEX, f3.5 Tessar		137.79
AUTO ROLLEIFLEX II, ¢f3.5		168.89
AUTO ROLLEIFLEX, LATEST, twin-back, M-X Full Synch. ¢f3.5* Xenar, with case	269.50	
AUTO ROLLEIFLEX, LATEST, twin-back, M-X Full Synch. ¢f3.5* Tessar, with case	299.50	
AUTO ROLLEIFLEX, LATEST, ¢f2.8* Tessar, M-X Full Synchronization to 1/500 sec. twin-back, with case	345.00	
ROLLEIFLEX, f3.5 Tessar		88.89
Zeiss IKOFLEX IIa — Latest, ¢f3.5* Tessar	164.00	108.89
Zeiss IKOFLEX III, f2.8 Tessar		133.23
KINE EXAKTA V, ¢f3.5* Tessar	199.50	
KINE EXAKTA V, ¢f2* Biotar	313.75	194.49

Average Shipping Weight 6 lbs.

ROLL FILM CAMERAS

	New	Used
Agfa VENTURA, 2¼x2¼, ¢f4.5*	39.50	27.79
Ansco TITAN, 2¼x2¼, ¢f4.5*		37.89
Kodak MEDALIST, f3.5, RF		88.89
Kodak MEDALIST II, ¢f3.5*, RF	312.50	167.79
Kodak MONITOR 620, f4.5		38.89
Kodak TOURIST, f6.3*	47.50	29.89
Kodak TOURIST 800, ¢f4.5*	95.00	68.89
POLAROID 1-Minute-Camera	89.75	63.39
Voigt. BESSA 66, ¢f4.5, NEW	39.89	
Voigt. RANGEFINDER BESSA II, 2¼x3¼, ¢f3.5*	115.00	86.89
SUPER IKONTA B, ¢f2.8* Tessar, RF	232.00	137.79
SUPER IKONTA BX, ¢f2.8* RF, built-in exposure meter	275.00	164.49
SUPER IKONTA C, 2¼x3¼, ¢f3.5*, RF	186.00	114.89

Average Shipping Weight 5 lbs.

SLIDE PROJECTORS

	New	Used
ARGUS 2x2, 100 Watt	27.95	16.89
ARGUS 2x2, 200 Watt	34.95	21.89
Golde REFLEX 2¼x2¼, 300W	74.98	47.39
Golde MASTER 3¼x4, 500W	71.75	46.89
KODASLIDE 2x2, 100W	29.50	18.89
KODASLIDE 2x2, 150W	49.50	33.89
KODASLIDE MERIT 2x2, 150W	24.50	18.89
KODASLIDE TABLE VIEWER 4X	49.50	34.49
LA BELLE AUTOMATIC 2x2, 500W, with blower	91.35	56.89
SKAN 2x2, 100W, blwr cooled	27.50	17.39
SKAN 2x2, 200W blwr cooled	37.50	23.98
SVE AAA 2x2, 300W For slides or strips	77.50	48.89
VIEWLEX V-33 2x2, 300W, blr	59.95	39.89

Average Shipping Weight 10 lbs.

EXPOSURE METERS

	New	Used
CHRONOS featherweight	24.95	16.69
GE DW-68, ASA, latest	24.50	16.69
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Average Shipping Weight 3 lbs.

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B&H AUTO-8 MAGAZINE, f11.9, 1½" f13.5 foc. lenses	284.15	178.89
BOLEX H-8, 3-lens turret, ½" f1.9 lens	314.00	168.89
CINE KODAK 8-25, f2.7		37.39*
CINE KODAK 8 Mag., f1.9	155.00	97.79
CINE KODAK 8 Mag., f12.7	127.50	88.89
CINE KODAK BROWNIE, f12.7	47.50	
DeJUR CITATION, f12.5	79.50	47.89
Revere 55, f12.8	69.50	38.89
Revere RANGER, f12.5	74.50	39.89
Revere 88, f2.5	72.50	43.98

Average Shipping Weight 6 lbs.

8mm MOVIE PROJECTORS

	New	Used
DeJUR "750", 750W	149.50	92.50
DeJUR "1000" 750W	167.50	109.89
KEYSTONE K-108, 750W	129.50	78.89
KEYSTONE R8, 500W	84.50	48.89
REVERE 85, 500W	114.50	62.89
REVERE DELUXE 90, 750W	144.50	83.89

Average Shipping Weight 30 lbs.

16mm MOVIE CAMERAS

	New	Used
B&H FILMO 70DA, 3-lens, f1.9, 3" f2.5, 17mm f2.7		254.00
BOLEX H-16, DeLuxe, latest, ½" f1.9, 3" f13.5, 15mm f12.8 complete with Octometer	490.75	247.50
CINE KODAK MAGAZINE, f1.9	149.50	97.89
CINE KODAK ROYAL, f11.9	192.50	
KEYSTONE A12, turret, f11.9	148.00	97.89

Average Shipping Weight 12 lbs.

16mm PROJECTORS

	New	Used
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B&H DIPLOMAT, 750W, case	289.95	188.89
KEYSTONE A-82, 750W	112.50	67.79
KEYSTONE K-160, 750W	129.50	78.89

Average Shipping Weight 40 lbs.

ENLARGERS

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DeJUR Versatile II, up to 3¼x3¼, f4.5, condenser	109.50	67.79
ELWOOD 5-2, 5x7	79.40	48.89
FEDERAL 135, 35mm, f4.5, cond	55.90	38.89
FEDERAL 269, 2¼x2¼, f6.3	44.50	32.29
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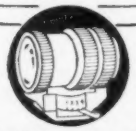

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Famous MM Recording Tape: ¼ inch x 1200 feet	5.50	3.29
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7x50 Kromboch Binoculars	169.50	89.50
8x30 Kromboch Binoculars	89.50	39.95
7x50 Glanz Binoculars	54.00	39.95
8x30 Sperber Binoculars	61.95	29.95
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Slide Mounts, Cardboard, 35mm, package of 50	1.75	1.39
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Aluminum Slide Binders 35mm/100s	9.95	7.89
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f3.2 Coated Wollensak Lens

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candid shots by the Editors

WINNER or wisher—which will you turn out to be? Four hundred contestants are currently facing their final chance for prizes in the big 1951 POPULAR PHOTOGRAPHY picture contest. More than 55,000 entries avalanched into the office before closing date. The judges, taking considerable punishment themselves, knocked out some 54,600 photographs—but another 400 keep bouncing back for another round, and now the judges are propping up their burning eye-lids for the finals. This year's 280 champions will emerge in a couple of weeks.

They'll all be announced in the king-size December Contest Issue of POPULAR PHOTOGRAPHY where you'll see many of them reproduced, including the five top prize-winners both in color and black-and-white. Then you can start collecting congratulations—maybe. Otherwise you can start pondering what photographic virtues are present in prize-getters and absent in the also-rans. And the judges can knock off at last—to relax with cold compresses over their scorching eyes. The first public showings of the 1951 prizewinners will be in the Kodak Information Center on the balcony of New York's Grand Central Station, and in the windows of the International Business Machines building at 57th Street and Madison Avenue, also in New York City.

Bradley Smith

Bradley Smith (see *I Photographed Helen Keller*, pg. 36) used a family anecdote to good advantage when portraying the personality of 70-year-old Miss Keller. Like most subjects, she was a little tense and unrelaxed in the presence of a photographer—until Smith had her companion relay this story: "Many years ago my parents were invited to a reception in your honor. (Miss K. looked expectant). But my father didn't want to go. (She looked incredulous). He'd had a couple of drinks and said you'd smell it immediately. (Miss K. smiled). But my mother hinted that you sometimes took a nip of wine yourself. (Miss K. began to laugh). So my father agreed to go, but only after having a bath and a complete change of clothes, and gargling with mouthwash for fifteen minutes." By then she was completely at ease, and Smith had a dozen lively black-and-white shots wrapped up in his Rolleiflex plus a couple of Speed Graphic color shots, too.

The fabulous Frenchman, Nadar, did wonderfully well with portrait photography 98 years ago; today he is recognized as a master of his art. When the American fashion photographer Horst set eyes on some Nadar prints in the Paris studio where the elder Nadar's daughter-in-law

Portrait of the elder Nadar by his son, Paul. Courtesy of George Eastman House.

still lives, he promptly took out his wallet and bought a batch of them. We're proud and pleased to present an exclusive feature on Nadar, with selections from Horst's Parisian booty—some of the pictures published here for the first time. We've enlarged the magazine by 16 pages to make room for them, and we've had them printed in sepia ink to reproduce the cherry-brown tones of the originals.

Ted Shane supplements the report on Nadar with a tongue-in-cheek postscript about Nadar's son, Paul. As a sideline to the family portrait business, Paul sold pinups of buxom beauties who make today's streamlined glamour gals look downright skinny by comparison. (We've included a few samples of his historic—and heroic—cheesecake). But son Paul's energy was not entirely devoted to this intriguing occupation; he also found time to be an enterprising businessman, editor, publisher, and—like his father—inventor. His *Paris Photographe*, started in 1890, was one of the earliest photographic magazines. (The decoration reproduced on page 88 is a copy of the back cover of the publication). All-in-all, the Nadars were one of the most amazing father-and-son combinations ever found in Paris.

Milton Greene, *Fashion's Man of the Hour* (pg. 36) is moving up so fast that even Bruce Downes can't keep up with him. Between the time Downes wrote his article and the time we went to press, Greene added another *Life* cover (Aug. 27th) to his bag (making a total of six in little more than a year) not to mention another whopping nine-page feature on Italy's big summer fashion show. At this rate Heaven knows how statistically outdated our story will be when this issue hits the stands!

The gentleman sprouting a reflector from his Adam's apple and a lens barrel from his right ear is genial Herb Giles, author-photographer of *Flash for Everyone* (page 60), who entered photography by way of a dance band. He played the drums in his own orchestra during depression years, then got somebody else to beat the skins for him so he could stand out in front with a baton crooning lyrics. Anybody remember swinging and swaying with Henry Herbert at the Roseland? That was pre-photography Giles. Calypso-singing is still one of his favorite ways of relaxing when away from his cameras and darkroom.

Miniature camera devotees and people who'd like to know more about this fascinating brand of photography will find a feast of up-to-the-minute information in *35-mm Today* (page 46), a 14-page feature inspired by the many requests you've sent us. One thing you'll notice about the pictures—most of them were taken by existing light whether a street lamp, 20-watt bulb, or the flame from a cigarette lighter. Taking photographs under "impossible" conditions has become a fine art among some 35-mm practitioners today; at the rate Ed Feingersh *et al* are going, many of their amazing results could be dubbed, "photography by *non*-existing light! But there's no secret to their ability to squeeze out recognizable images when the light is dim enough to make a cat stumble. We've included facts and a formula that will help you, too, get pictures where you never believed possible.

Herb Giles

Lucky Shots Department: When Bob Schwalberg was assigned to cover a political convention in 1948, he was told, "Get a picture of a typical old-time newspaperman." With his Contax ready for action he wandered through the crowd until he spotted his quarry—a grizzled old newshound who might have stepped from the cast of *Front Page*. Bob moved in close and made a dramatic head shot of the glowering stranger. Later, back at the darkroom, he and a friend watched the first prints being pulled from the hypo. "Hey, that's H. L. Mencken!" the friend yelled. And so it was, as you can plainly see on page 56.

Photography is coming up in the world—that's the report from the American Hobby Federation who have just completed a survey of America's 10 most popular hobbies. In 1949 when their last tabulation was made, camera fans didn't rate a listing among the top ten. Now, photography is number four and continues to gather "huge numbers of followers." The trend, say the Hobby people, is away from mere "collecting" to "creative" avocations. Surely it's not surprising that more and more people every day are turning to photography for creative satisfaction.—

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Ciroflex, Rapax Synchro	119.70	83.00
Ikoflex IIA Tess. 3.5 Synch	164.00	108.00
Kodak Reflex F:3.5 Synch	.....	64.00
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Rolleicord III F:3.5 Xenar Latest	160.00	.....
Medalist I, Ektar F:3.5	.....	89.50
Medalist II, Ektar F:3.5	297.00	168.00
Polaroid Land Camera	89.75	63.00
Super Ikonta B Tess. 2.8	234.00	108.00
Super Ikonta C Tess. 3.5	186.00	98.00
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Leica IIIF Latest Synchro	$224.00	.....
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35mm Summaron F:3.5 W.A.	123.30	83.00
35mm Biogon F:2.8 CPLD	246.00	118.00
85mm Summarex F:1.5 ctd.	472.00	315.00
90mm Elmar F:4 black	.....	67.50
90mm Elmar F:4 Chrome	133.00	83.00
135mm Hektor, F:4.5	175.00	89.00
Contax "S" Biotar, F:2 ctd.	475.00	268.00
Contax I Tess. F:2.8	.....	64.50
Contax II Sonnar F:2	.....	138.00
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Contessa "35" Tess. 2.8 RF Syn.	195.00	117.00
	NEW	USED

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Robot II Xenon F:1.9	118.00	.....
Weston Master II	32.50	19.00
G.E. DW-68	24.50	16.25
Chronos Exp. Meter	24.50	15.75
G.E. P.R.I. Meter	32.50	19.80
Norwood Director	35.00	21.50
DeJur Lifetime	27.50	18.25
G.E. P.R. 30, Latest	16.95	.....
TDC Stereo Projector	165.00	118.00
Argus 100 W Slide Proj	27.50	16.50
Golde Numatic 300W Blower	64.66	43.50
Golde Reflex 2 ¼x2 ¼ 300W	74.75	46.00
2 ¼x2 ¼ TDC. RP Blower	82.20	48.00
TDC Mod. D 300W Blower	62.20	38.00
La Belle 500 Autom	87.50	56.00
De Jur Versatile II F:4.5	109.50	68.00
Omega 84 F:4.5	134.75	98.00

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B&H Regent 500W	$139.95	$98.00
DeJur 750W. case	149.50	88.50
Revere Mod. 85, 500W	99.50	63.00
Keystone A-82, 750W	112.50	68.00
B&H Filmosound 185C	449.50	296.00
Revere Sound	299.50	174.00
B&H Auto 8, F:2.5, Latest	139.50	85.50
DeJur Citation	79.50	46.50
Kodak Mag., 90, F:1.9	155.00	94.50
DeJur Embassy F:2.5	109.50	68.00
Revere Ranger F:2.5	72.50	47.00
Revere 77 Mag., F:2.5	99.50	58.00
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I photographed Helen Keller

By BRADLEY SMITH

HOW would you go about photographing a woman who could neither see nor hear you? How would you show that though she is both blind and deaf, she manages to understand and enjoy more of the world around her than most of us who have all five senses?

Every professional photographer likes challenging assignments, and I have certainly had my share of them. I've made pictures of Gandhi at a prayer meeting near New Delhi; of motorcyclists riding a "death wall;" of an outdoor carnival at night; of Kentucky mountaineers; of ballet performances in color. Each of them presented special problems, but none of them was as challenging as the job of photographing one gentle, sensitive woman who lacked the two senses most of us prize highest.

The difficulties of this assignment were not physical ones which could be solved simply by using the right kind of (*Continued on page* 124)

Helen Keller's hands tell her much of what others learn from sight and sound. In Bradley Smith's photograph, left, she makes acquaintance of small boy. Ektachrome, opposite page, like others in Smith's series, was made after careful thought and preparation; he sat for hours in quiet dark to try to share some of the experiences of the sightless and the deaf.

The
pain

MILTON GREENE

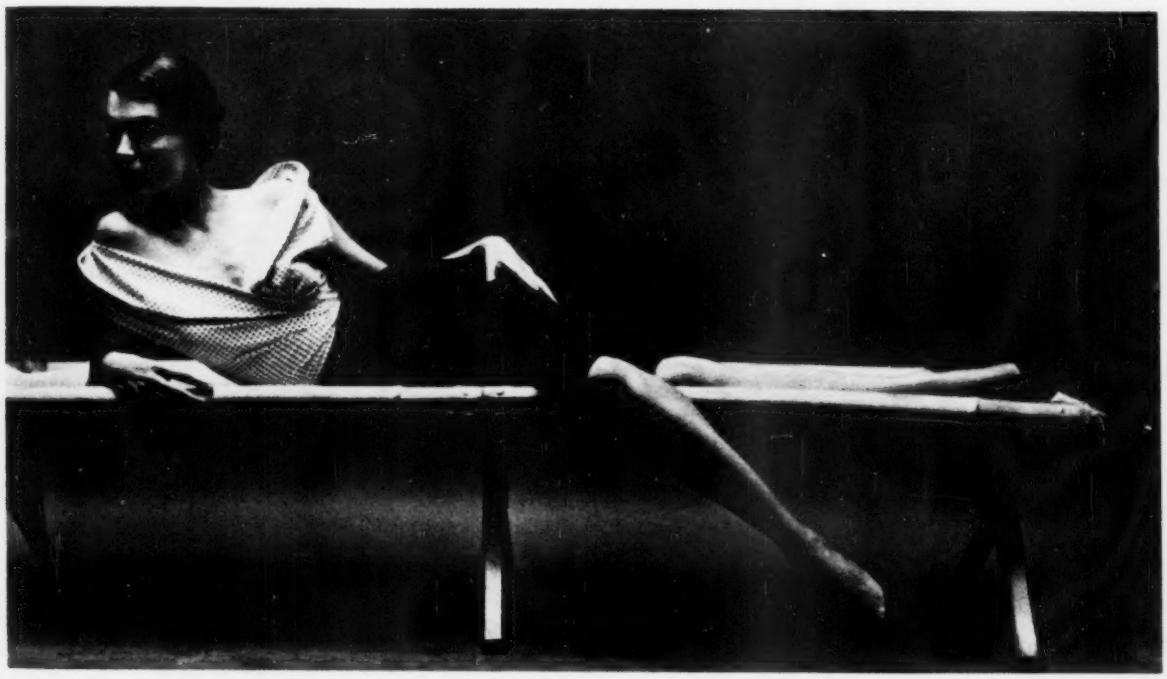
Fashion's man of the hour

By BRUCE DOWNES

WHEN MILTON GREENE, once a box-camera amateur, hit *Life* with his first cover and inside spread on women's low-priced blouses (April 24, 1950) he opened a new phase of his own career and began a series of assignments that quickly revealed him as one of the most refreshing of the current crop of big-time fashion photographers.

In the field of the shifting hem-line and the bra-boomed bosom, Greene is the young man of the hour. In a little over a year he made the *Life* cover five times and, among other admirable inside features reached something of a record climax with eight pages of breath-taking full-color fashion shots in the May 21st, 1951 issue. Although his success

Fashion models come to life, become warm, feminine under Greene's provocative direction. Made under studio-simulated natural light.



The early morning sun rises high over a woodland valley in Connecticut to paint a shimmering backdrop for Milton Greene's evocative fashion camera.

Courtesy *Life*. © Time, Inc.

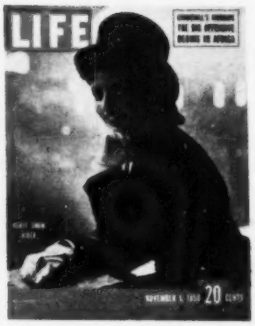
Greene's imagination is agile. When *Life* asked him to interpret "Alice in Wonderland" using the Ford Theatre TV cast, he did a fine job of fantasy. For this reflection shot he used an old trick, placed a mirror edgewise in front of the lens.

Look at the pictures on these pages and note Greene's versatility. No direction here, just a Contax and an eye quick enough to catch a moment of reality—an elderly woman alone at a Paris sidewalk cafe about to pay her bill.

in *Life* was as surprising to some as might be Dali's appearance in *National Geographic*, these pictures, made in the Virgin Islands, resolved all doubts once and for all. If in the past Greene had gone off from time to time on sorties of experimentation and come up with his share of blurred, nervous pictures, his new fashion pictures were solid and healthy. Greene actually had done a simple and refreshing thing—restored sex to the traditional anemic fashion model without depriving her of one jot or tittle of her grace or beauty.

Greene's achievement was really something of a minor miracle. He took the iced wax works out of *Vogue's* freezer and brought them to vivid life so that men could actually sense the warmth throbbing beneath the frocks which their wives admired for other reasons. The fashion audience was thus probably doubled and everybody was happy.

Love's Secret reveals the photographer as skillful director simulating realism with professional models.



Greene hit *Life*'s cover bulls-eye 5 times in little over year. Left, his first; upper left, his best, made on Virgin Islands job.

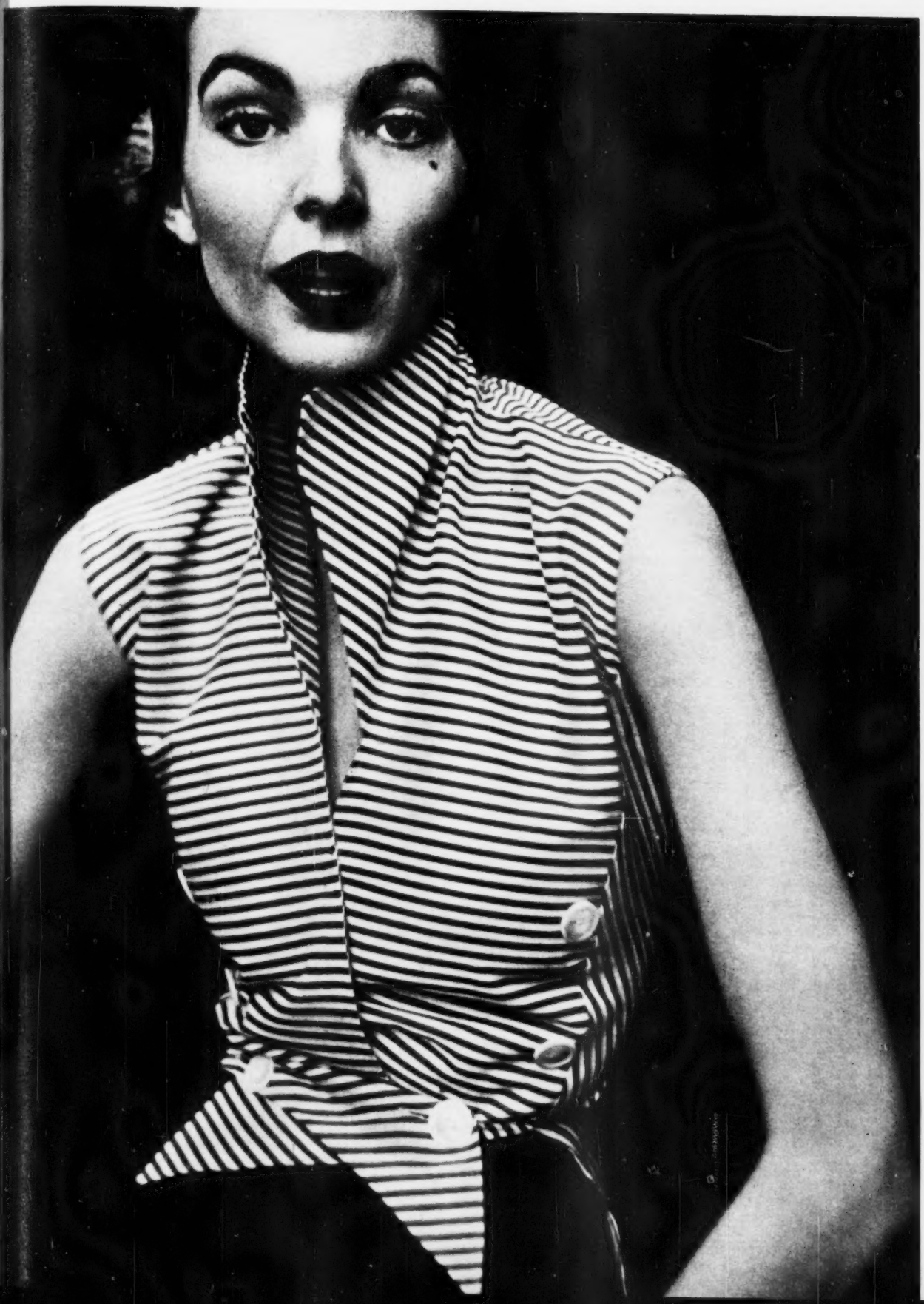
Courtesy *Life*, © Time, Inc.

The truthful mirror—Dorian Leigh, one of his favorite models, examines herself in presence of Greene's Contax. Natural light, 1/50, f/1.5.

Milton's camera restores sex to fashion photography. This shot, reproduced from color transparency, was made in the Virgin Islands.

How did this young man thaw the ice of the mannequins? How did he supplant the pained eyebrow and the haughty chin with the human warmth of women who have dropped the mask of pretense? The answer was not easy to get at, but some surreptitious prowling around the fashion pastures dredged it up in fragments. Here for example is one important fact photographers can learn from Milton Greene: Like most first rate photographers he is a first rate director, which means that he does not pose his models but knows how to get them to behave in front of his camera as if they were doing what comes naturally. (*Continued on page* 124)

Fashion portrait of Kathrine Cassidy points up Greene's ability to photograph his models as living women, not just frozen mannequins.



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LOOK *before* t

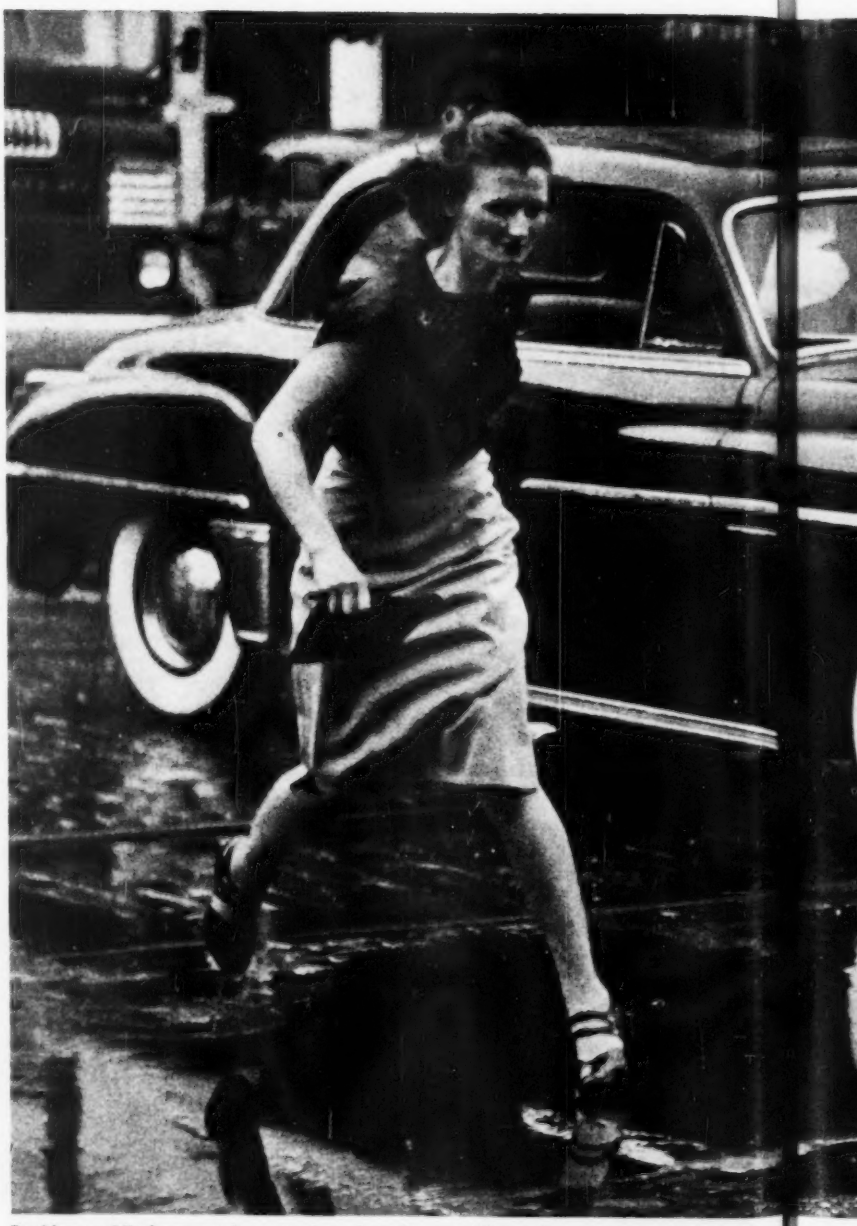
Angus McDougall picked a spot where action was sure to happen. The payoff—this amusing picture series

GOOD pictures rarely come to the photographer; the guy with a camera has to go to them. But even if you don't carry a crystal ball in your gadget bag you can anticipate action and predict where exciting pictures are bound to happen. Common sense, an alert eye, and patience pay off in "stoppers" like the photographs in this amusing series by Angus McDougall of the *Milwaukee Journal* staff.

McDougall and his 4x5 Graflex went hunting for feature pictures one rainy afternoon when assignments were light. The downpour was over when he noticed a puddle at a busy intersection in downtown Milwaukee; rain had filled a depression left by street repairs and formed a pool too long for pedestrians to walk around and too wide to jump across. "This is it!" thought McDougall, and readied his camera for some fast shooting.

In the space of a few minutes he recorded unhappy citizens using every method for crossing the pool short of imitating Sir Walter Raleigh's act with a cloak. The shots are particularly effective because of their completely candid quality —"Most people were so preoccupied with the puddle that they didn't even see my camera," says McDougall.

You, too, can capture eye-catching and unusual pictures like this series if you learn to spot the places where and the times when action is sure to explode.—▶



Dashing puddle-jumper takes water hazard on the run, still gets feet wet. Angus McDougall, *Milwaukee Journal* photographer, made these pictures after a rain storm flooded gutter at busy street corner. He used a 4 x 5 Super D Graflex with 190-mm lens and an automatic diaphragm.

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cDougall,
r at busy
aphragm.

Helpful escort lends his hand to woman as he tests water depth in middle of puddle. A shutter speed of 1/300 second stopped action; exposure was f/8 on fast panchromatic film.

Cautious lady crosses with timid steps, walks on her heels. People were so preoccupied with puddle that they didn't notice McDougall and his Graflex.

"Aw, the heck with it!" This man's face mirrors his resentment of Milwaukee's sodden weather as he plods through pool with sullen disregard for water.

Boy carries girl, and gallantly solves the problem of getting her across dry-shod. Notice how McDougall's choice of angle emphasizes the essential details—puddle and feet.

Mugging clown, by Ed Feingersh, symbolizes contemporary use of 35-mm to grab life on the run in pictures by existing light. Camera was a Contax II; exposure was 1/25 sec. at f/2 on Plus-X film. Subject—Feingersh's kid brother who donned greasepaint for circus picture series.

TWENTY-SIX years after the first miniature camera appeared on the market, 35-mm photography has become something of a colossus. Millions are using the little camera exclusively to make color slides, while black-and-white devotees, both amateur and professional, have assumed the dimensions of a world cult. Because 35-mm is so popular, and because our mail brings in so many questions about it, we decided it was time we covered the whole subject thoroughly and from all angles.

Back in 1925, there were those who laughed at the

35 mm TODAY

Miniature photography really has grown up in the last quarter of a century! Here's the whole story from beginning right up to the latest techniques

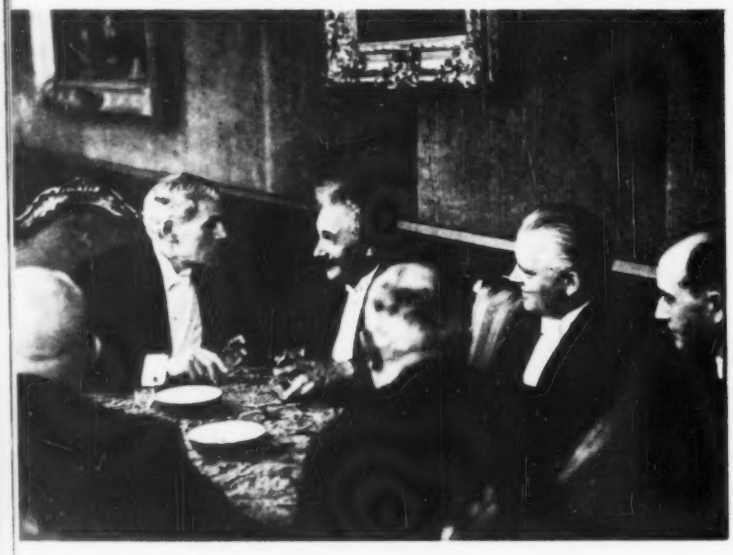
newcomer, and called it a mere toy or gadget; others hailed it as the "universal camera" that could solve all photographic problems. The truth, as revealed by a quarter century of experience, lies somewhere between. A mighty midget indeed, the 35-mm camera provides a new approach—a more direct way of recording life on sensitized celluloid. But it has by no means replaced all other types of cameras.

The miniature was born in the brain of Oskar Barnack, a German photographer who developed a still camera that could make single-frame exposures on movie film. His invention was intended as a film-testing device, but he soon saw it had other, more exciting possibilities. In 1914, Barnack's first 35-mm model was ready, but World War I interrupted his work. In 1925, a perfected model—the first Leica—was launched in full-scale production.

A few clear-sighted men early recognized the 35-mm camera for what it was—an instrument that could do much to close the gap between seeing and taking a picture. There were giants of the miniature camera in those days—Dr. Paul Wolff who helped create a new

35 mm THEN . . . . .

Early masters of 35-mm experimented with existing light and produced many great pictures. Alfred Eisenstaedt's shot of Milano Scala (above) was made in 1933—the first interior photograph of this famous opera house. Candid view of Einstein meeting MacDonald in '31 (below) typifies informal behind-the-scenes news coverage developed by Dr. Erich Salomon.



school of photography . . . Dr. Erich Salomon, a pioneer photo-journalist who recorded contemporary history with behind-the-scenes coverage by existing light . . . *Vogue's* Remie Lohse who shot candid pictures of fashion and society . . . Tom McAvoy who scooped the best press photographers in the nation when he took the first candid shots of a President in action (Roosevelt signing the 1935 Brazilian trade agreement) . . . Alfred Eisenstaedt who brought his skill from Germany to the pages of *Life*, and recorded the American scene with great impact . . . Henri Cartier-Bresson who added new dimensions to photography in brilliant and startling pictures of Europe before World War II.

But there were those who misunderstood, too. The 35-mm camera, so easy to carry and easy to hide, made possible a new kind of photography that many eagerly seized upon. This was the era of the "candid camera" craze, when thousands of miniature camera owners used their equipment as "peeping toms" to capture unposed pictures, often in bad taste and violating privacy. Others turned to subjects unsuitable for 35-mm reproduction, and vied in concocting super-finegrain developers and making mural-size blow-ups. The slogan, "big pictures from little negatives," became the be-all and end-all of photography. Under these circumstances, lasting satisfaction was impossible, and interest in the 35-mm camera began to decline.

Then, in 1935, a miracle of science brought color on Kodachrome within reach of most amateurs, and started a boom that has been going strong ever since. Today, it is estimated that more than 90 percent of 35-mm owners use their cameras mostly for color. During the past few years, depth, too, has been added to color on 35-mm film with the rebirth of stereo.

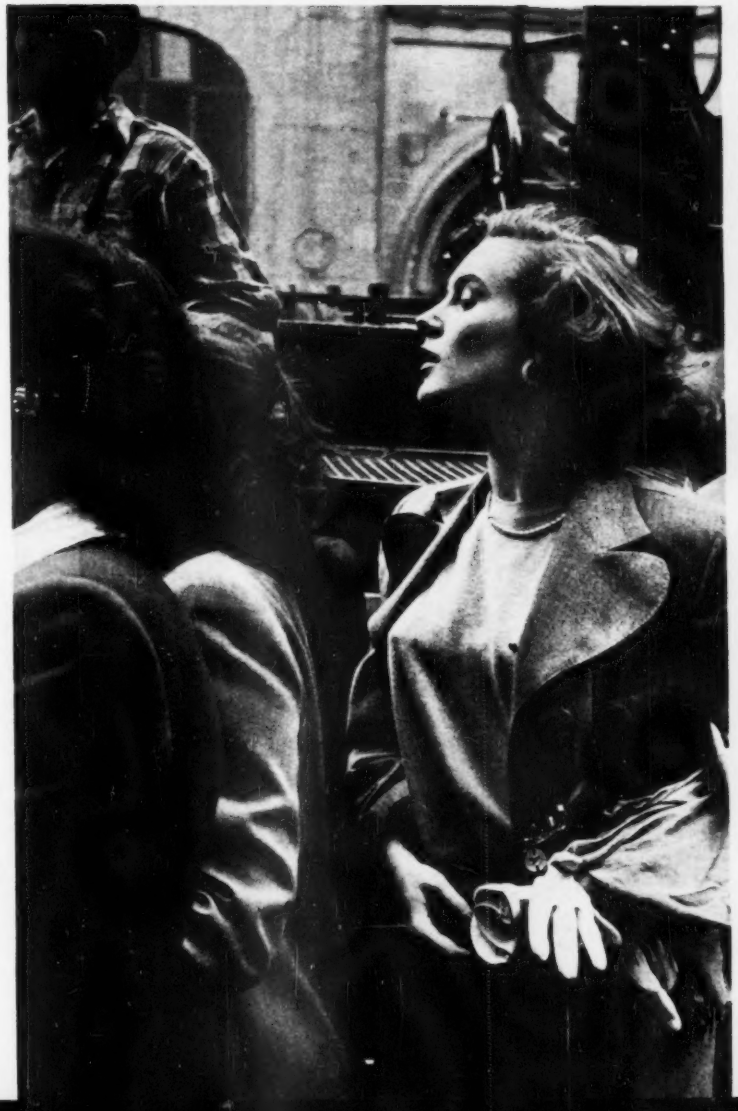
Black-and-white 35-mm photography has enjoyed an upswing in popularity of late, especially among magazine photographers. Men like W. Eugene Smith, David Douglas Duncan, Leonard McCombe, Dan Weiner, and Ed Feingersh give penetrating glimpses into reality through the ultra-fast lenses of their 35-mm cameras. They have acquired a stripped, streamlined technique that reduces mechanical operations to bone-bare essentials; they push themselves and their equipment to the utmost in trying to fuse the things they see into the things they record. The result is truly great photography.

Where does 35-mm go from here? Its future is unpredictable, but one trend stands out clearly in the work of contemporary masters —use of existing light. More and more photographers are discarding flash and floodlights because they tend to destroy mood and overemphasize values. In his search for greater realism, the photographer of 1951 depends on

. . . AND NOW

Four photographs courtesy *Life*, © Time, Inc.

Career girl story, by Leonard McCombe, shows what 35-mm can do in the hands of a skilled photo-journalist. McCombe spent two weeks shooting day-by-day life of Gwyned Filling, an out-of-town girl seeking the big time in New York. From the 12-page story in *Life*, May 3, 1948, are reproduced four examples—Gwyned with her boyfriend; in her apartment; at work; and watching a fire. McCombe used a Contax II, shot with wide aperture and slow shutters in existing light to preserve the realism of natural settings. "I wanted to give the feeling that the photographer wasn't there," he says—an approach that keynotes much magazine photography today.



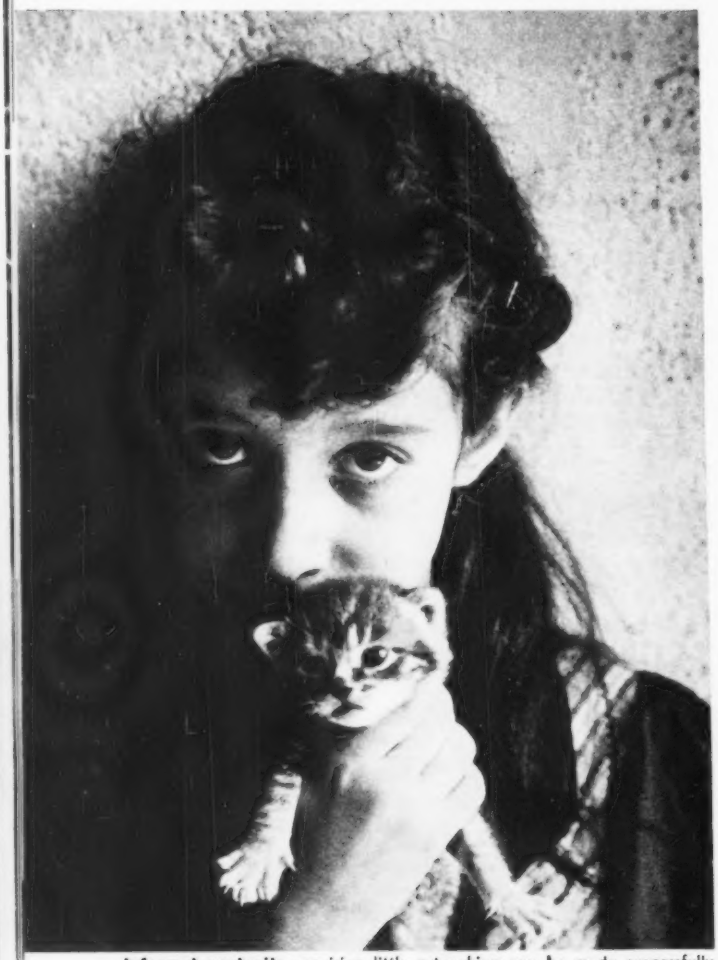
the illumination already existing in the picture setting—whether daylight, moonlight, light from ordinary tungsten lamps, or even candlelight. Of course, photography by existing light is nothing new, as the early work of Salomon, Eisenstaedt, and others show. But never before has this technique been so popular or so highly developed.

Tough problems arise when the level of illumination is low; fast lenses must be combined with slow shutter speeds, super developers must be used to boost film sensitivity. A whole new technique for taking pictures in poor light has been developed to solve these problems. Of this, we'll have more to say later. The answers have been found, and many photographers claim they can record on film any scene they can see with their eyes.

The 35-mm camera is a responsive tool in the hands of those who know how to use it. At its best—when equipped with a fast lens—it is unmatched in its ability to grab life on the run and crystalize forever a living moment in space and time. At its worst, equipped with a poor, slow lens—it can be frustrating. To understand the capabilities and limitations of the miniature, we first need to take a close look at the camera itself.

continued

35 mm THE CAMERA and how to use it



Informal portraits requiring little retouching can be made successfully with 35-mm cameras. Diane and Ray Witlin took this fine shot with Contax.

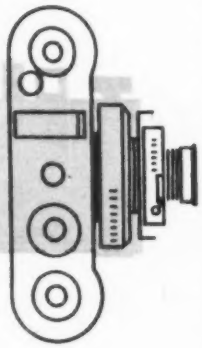
THE KEY to 35-mm photography is the size film used. Miniature cameras were designed to put enlargeable negatives on strips of 35-mm movie film; from this simple but revolutionary idea stem both advantages and disadvantages, exciting opportunities, and dangerous pitfalls. The small-size negative material of these cameras also calls for special picture-taking and processing techniques which you should understand if you want to get the most from miniature photography.

An obvious result of using 35-mm film is seen in the size of the camera itself: most 35-mm cameras are small enough to fit the flat of your hand or slip easily into a coat pocket. Because they are so lightweight, easy-to-carry, and take up so little room, they appeal both to casual snapshooters who want a convenient camera for week-end outings and to professionals who must work where bulky equipment is a handicap. This extreme portability, plus eye-level finders and speedy operation, make the 35-mm camera particularly useful when you want to photograph fast-breaking action or record an unexpected scene. In fact, the qualities most often associated with 35-mm pictures—spontaneity, candidness, informality—are in large part made possible by the small size of camera and film.

A fine 35-mm camera, like a fine watch, represents precision craftsmanship—and this costs money. Small size, such an advantage to the user, makes the 35-mm camera a difficult product to mass-produce on an assembly-line basis. You can't expect a high-quality precision miniature with advanced features to sell for the price of a box camera. If you are in doubt about what you can reasonably expect for your money, see "How to Pick a 35-mm Camera," below.

Lenses, too, are affected by film size. Optical experts design conventional lenses so that focal length

How to pick a 35-mm camera



LIKE other photographic equipment, 35-mm cameras are available in many price brackets from as little as a few dollars to several hundreds of dollars. Naturally the more expensive the camera the finer the precision, the better the lens, and the more versatile the instrument. Since buying a camera usually is considered a long-term investment, the best advice that can be given the purchaser is "buy the best you can afford, or the one that can fulfill all your requirements."

A 35-mm camera produces negatives and color transparencies 25x36-mm or approximately 1x1½ inches on 35-mm movie-type film, which has perforations along both of its edges. It should be pointed out that closely related to cameras producing the full-frame negatives (24x36-mm) are those which produce the so-called single-frame picture (18x-24-mm), a few which turn out a square format (24x24-mm), and the Bantam cameras which produce a 28x40-mm negative or transparency on unperforated film.

Thirty-five millimeter cameras are relatively compact and lightweight. Except for a few single and twin-lens reflex models, they all incorporate an optical eye-level viewfinder. Beyond this point they vary one from another in many ways. Prices, for example, range from a few dollars for molded plastic models having fixed-focus rapid rectilinear lenses and simple front shutters to as much as $500 for deluxe precision instruments with the finest lenses and a variety of operating conveniences.

By and large, the more expensive the camera, the more refined its construction and the greater the number of features it incorporates. As you progress from the simplest and most inexpensive cameras to the more advanced "under $100" models, you generally will find a variety of features added to the basic camera structure. These are, in approximate order of refinement, the following:

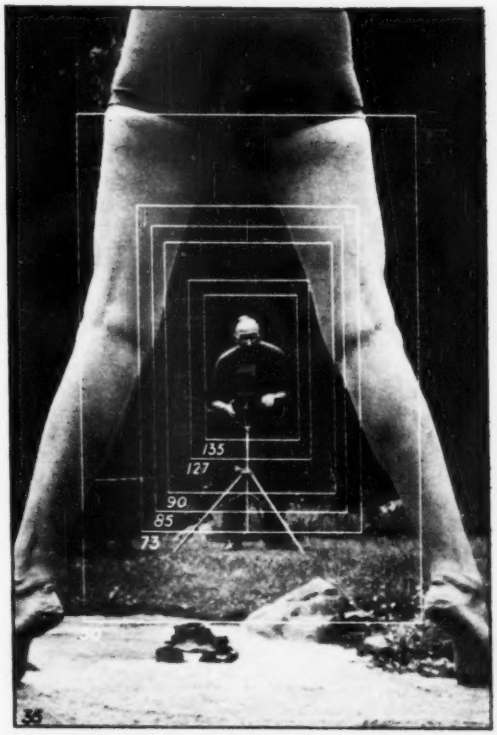
Body shutter release
Focusing lens mount
Depth-of-field scale

Sequence shots are easy to make with fast-working miniature cameras. This unposed bit of action was shot with Argus C4 at f/2.8.

approximately equals the diagonal of the negative area (about 50-mm in the case of "double-frame" 35-mm film). Now, the maximum speed of a lens (its ability to transmit light) depends on the ratio between the diameter of the lens aperture and its focal length. The longer the focal length, the wider the lens aperture you need to transmit the same amount of light to the negative. Here is where the short focal length of 35-mm cameras offers a big advantage: an f/2 lens for a miniature camera with a focal length of 50-mm, has an aperture of 25-mm or one inch in diameter; an f/2 lens, say for a press camera with a focal length of 135-mm, would have an opening of about 68-mm in diameter or more than 2¼ inches—a whopping big lens indeed! The optical difficulties of grinding such a large lens would be great, to say nothing of the cost. So you can see why ultra-fast (f/2 or better) lenses are practical only for short-focal-length miniature cameras, and why photography under "impossible" existing light is monopolized by users of 35-mm.

Short focal length gives the miniature camera another advantage—great depth of field even at wide lens apertures. At small lens apertures you have a good margin of safety in case your focusing isn't right on the nose, and you can take pictures with everything in focus from foreground objects to distant background. Of course, extreme depth of field isn't always necessary or even desirable, but much of the time it's a mighty useful characteristic.

Film for 35-mm cameras comes in ready-to-use cartridges of 20 or 36 exposures, or can be purchased in bulk form and loaded into special magazines for insertion in the camera. The first method, with daylight loading cartridges, is more convenient, but also more expensive—averaging roughly 4 cents an exposure at current prices. By loading the film yourself you can cut this cost to a fraction of a cent



Interchangeable lenses, available in many 35-mm cameras with focal-plane shutters, help solve picture-taking problems by giving control over field of view. Look at this picture to see coverage of different focal-length lenses: wide-angle (35-mm) lens includes entire area; normal (50-mm) lens narrows field considerably; telephoto (73 to 135-mm) lenses cover less and less of total picture area. One camera equipped with set of several lenses can be adapted for a variety of situations.

continued

Film identification device
Built-in flash synchronization
Automatic exposure counter
Double-exposure prevention
Automatic shutter cocking coupled to film-advance mechanism
Coupled rangefinder focusing

As you proceed to the most costly models, you generally will find that they have a number of advanced features in common which broaden their applications. Some of these features may be found in less expensive cameras made by certain manufacturers, but rarely all of them and with the same degree of refinement. These advanced features include:

Interchangeability of lenses
Focal plane or complex behind-the-lens shutter
Shutter speeds to 1/500 and as high as 1/1200 second
Slow shutter speeds below 1/25 second
Fine anastigmat lenses with maximum apertures ranging from f/3.5 to f/1.4.

You will find, too, that a few specialized cameras incorporate such added features as built-in extinction-type or photoelectric exposure meter, rapid film advance mechanism, or motor-driven device for making sequence pictures. There are even single and twin-lens reflex models which incorporate many of the other features listed above. For a comprehensive guide to these miniature cameras in all price categories, we suggest you refer to the illustrated Directory of Photographic Equipment in the May 1951 issue of POPULAR PHOTOGRAPHY.

You may find that your choice of camera will be dictated by the variety and scope of picture-taking and processing accessories that can be used with the models in which you are interested. You can get all kinds of close-up attachments, copying devices, accessory viewfinders, photomicrographic and reflex- focusing couplings, daylight loading devices, and what-have-you. They all are intended to adapt various cameras for many extra purposes.

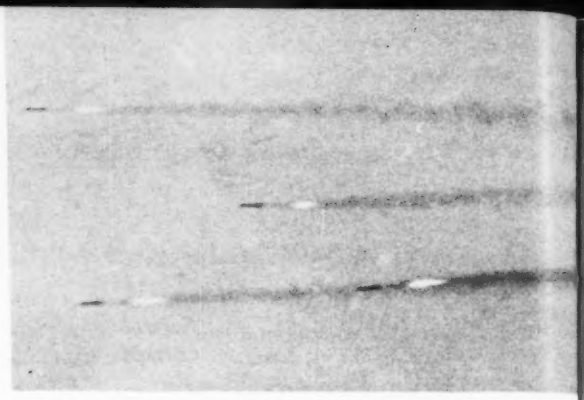
Always remember, too, that the miniature camera is really marvelous for the many things it can do well, but it does *not* do *everything* best. It is far from ideal for formal portraiture because the small negative sizes make retouching tedious and cumbersome; and cameras taking larger film are far more suited to situations where fine detail at a distance from the camera is to be recorded. Moreover, the small camera is not the best choice when contact prints are needed (you require a reading glass to study them) or when there isn't time or facilities for careful negative processing.

However, there are countless reasons in favor of the miniature; many capable photographers use it exclusively, and thousands of amateurs who shoot only color use this type of camera either as their only piece of equipment or as one of several types they may own. If you plan to buy one, remember our opening advice: buy the best you can afford and with the features you most desire for your picture-taking needs.

35 mm

THE CAMERA and how to use it

continued



per exposure. Whichever method you use, you have a variety of emulsions to choose from. Available in 35-mm are color film, special-purpose films such as infrared and copying film, and panchromatic black-and-white emulsions which can be divided into two general classes—1) finegrain and medium speed; 2) medium finegrain and fast speed. The choice between these two classes depends on which is more important for a particular purpose—fastest possible emulsion or finest possible grain. As a rule, films in class 1 are used as all-purpose films, while class 2 films are reserved for photography under poor light. (For formulas and processing information, see "35-MM—How to Process It," pages 56, 57.)

The low cost and large number of exposures available on one roll encourage 35-mm photographers to shoot many pictures at a time. On some models, the perforated edges of the film fit sprockets on a spool which cocks the shutter as you wind the film, thus making it possible to take pictures in rapid sequence. But these features are not an unmixed blessing. Some critics claim that 35-mm cameras encourage careless, hit-or-miss shooting because they make it *too* easy to take pictures. And certainly, a 36-exposure roll can be a drawback when you've filled part of it and can't wait to see the results: you have to finish off the roll, or resort to darkroom manipulation in removing the exposed portion.

Less expensive 35-mm cameras usually have between-the-lens shutters, but the more costly types are equipped with focal-plane or behind-the-lens shutters which make possible another feature—interchangeable lenses. By a simple twisting or pulling motion you can remove one lens and replace it

Attack, dramatic aerial shot by Lt. Col. William Fiske, was made with Leica and telephoto lens. Exposure: 1/500 sec. at f/4.5.

with another. Often a whole battery of different lenses ranging from 35-mm wide-angle to 135-mm telephoto are available for one camera. Thus a single camera can be adapted to a variety of jobs, and can meet many different picture problems—a versatility that led to the miniature's claim as a "universal camera." But extra lenses, plus accompanying rangefinders and attachments, cost a lot of money. For most of us, our 35-mm is still a one-lens camera.

So much for the miniature itself; now let's see how this amazing midget should be used for best results. Some people are a little afraid of 35-mm cameras because they think they are hard to handle. But, like driving a car, once you have the knack it's easy. Keep one thought in mind when using a miniature—remember that you're going to make enlargements from an extremely small negative area. With 35-mm there's just no room for sloppy methods; every step counts from the time you load the camera to the time you dry the final print; every flaw and error will be magnified many times.

Precision miniatures with built-in rangefinders at eye-level make picture-taking an almost automatic gesture. Four steps are necessary: 1) *wind* the knob which advances film and cocks shutter; 2) *check* lens opening and shutter speed setting; 3) *focus* through rangefinder; 4) *press* shutter release. This pattern may vary somewhat depending on the particular camera; for instance, some models lack automatic shutter cocking, and some have a separate window for both rangefinder and viewfinder. But the basic steps remain the same.

Actually taking the picture with a miniature

continued

Fog-shrouded lights in city park gave only illumination for this night shot by Bob Schwalberg. He used Contax II fitted with wide-angle lens to cover large area.

35 mm

THE CAMERA and how to use it

continued

Hand-held 35-mm cameras can take unblurred pictures at slow shutter speeds if good stance is followed (right). Jerry Cooke's shot of nightclub dancer (facing page) was made at only 1/10 sec.!

Camera by courtesy of Willoughby

camera is a bit different from larger cameras. First, the viewfinder usually is at eye-level which gives you a stronger feeling of photographing what the eye sees, but may be awkward when your subject is below eye-level. Some reflex-type 35-mm cameras can be held at waist-level and focused through a ground-glass viewing screen. Then, in framing the picture, you need to be careful not to waste any part of the picture area and thus require extra enlarging. Light-weight miniatures are harder to hold without moving than larger types, but steadiness is particularly important because even slight blur due to camera motion will be exaggerated many times in enlargement. So it is important to practice holding the camera absolutely steady.

Stance is as important for a 35-mm photographer as for a big-league batting star—and shows almost as much individual variation. The important thing is—make the camera a part of yourself by pressing it firmly against your face. Use your cheek, nose, or forehead as a steadying prop, hold the (*Continued on page* 118)

Tripod provides needed support for time exposures and pictures where sharp detail is wanted. Unless you're very steady, use tripod for speeds of less than 1/25 sec.

← **Still-life** by Melton Ferris (left) is a needle-sharp picture which required use of tripod. Exposure: 1/200 sec. at f/12.7.

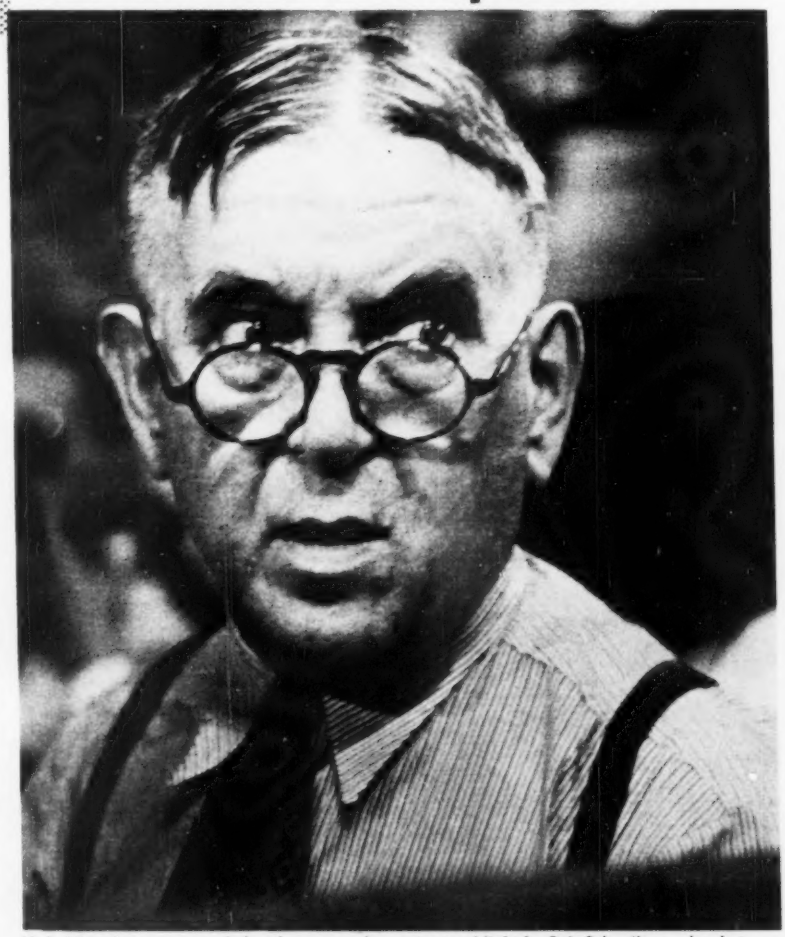
For facts and formulas on processing, turn the page

35 mm HOW TO PROCESS IT for maximum speed

DEVELOPER D-76-F

	Avoirdupois	Metric
Water, about 125 F(50 C).	24 ounces	750.0 cc
Elon.....	29 grains	2.0 grams
Sodium sulfite, desiccated...3 oz.	145 grains	100.0 grams
Hydroquinone.....	73 grains	5.0 grams
Borax, granular (or Kodalk).....	290 grains	20.0 grams
Water to make.....	32 ounces	1.0 liter

The Kodak Handbook recommends the above formula as a fast-acting variation of D-76 which cuts in half the normal developing time of 17 minutes at 68 F. But many experts in existing-light photography use D-76-F to increase film sensitivity by prolonged development. For example, Plus-X film (100 Weston) can be boosted to an effective speed of between 200 and 300 Weston when developed in D-76-F for 7½ minutes at 70 F, and even higher speeds with longer development. By replacing the Borax with an equal amount of Kodalk, you can get speeds of 400 Weston and higher, but more grain will appear. Some users of D-76-F prefer to develop their 35-mm films in trays by inspection because this allows more accurate control. But after a little experimenting you can get satisfactory results from the time-temperature method. D-76-F should be discarded after one-time use.



H. L. Mencken was recorded under extremely poor natural light by Bob Schwalberg who shot at 1/25 sec. and f/2 on Plus-X film, then processed in "souped-up" developer (see formula).

CARE AND CLEANLINESS—that's the secret to successful darkroom work with 35-mm film. Actually, the basic procedure for developing miniature film is the same as for developing any other size roll film: you load it in a tank, put it through developer, stop bath (or three-minute rinse), and fixing bath, then wash and dry. But because each tiny negative area will be blown up many times actual size, you need to be particularly careful about avoiding grain, fingerprints, dust spots, scratches, and water spots.

Some pros and advanced amateurs develop 35-mm film in trays by inspection (see "Processing for Maximum Speed," above), but this takes a keen eye and plenty of practice. Time-temperature development in light-proof tanks is much more convenient because only the loading must be done in total darkness, and handling the film is cut to a minimum.

To insure success, follow this three-point plan: 1) clean all equipment thoroughly before and after using; make sure that developer isn't carried over into the fixing bath, and vice versa. If sediment or dirt appears in any of your chemical solutions, filter them through absorbent cotton. 2) Handle films with great care, holding them by the edges only. Protect them from dust as much as possible during drying. As an extra precaution against scratches and reticulation, use a hardening stop

for fine grain

Portrait of Japanese girl, by Horace Bristol, shows crisp detail, lack of grain possible when maximum speed isn't necessary. Bristol exposed by meter, used a finegrain developer.

DEVELOPER D-25

	Avoirdupois U. S. Liquid	Metric
Water, about 125 F (50 C).	24 ounces	750.0 cc
Elon	¼ ounce	7.5 grams
Sodium sulfite, desiccated	3 oz. 145 grains	100.0 grams
Sodium bisulfite	½ ounce	15.0 grams
Cold water to make.	32 ounces	1.0 liter

Dissolve chemicals in order given. Average development time in tank is about 35 minutes at 68 F, and about 18 minutes at 77 F with no increase in grain—which makes this Kodak formula an excellent hot-weather developer. To replenish, add DK-25R (see below) *at the rate of 1¼ ounces per roll for the first 50 rolls per gallon of developer, and at the rate of ¾ ounce per roll for the second 50. The developer then should be replaced with a fresh solution.*

REPLENISHER DK-25R

	Avoirdupois U. S. Liquid	Metric
Water, about 125 F (50 C).	24 ounces	750.0 cc
Elon	145 grains	10.0 grams
Sodium sulfite, desiccated	3 oz. 145 grains	100.0 grams
Kodalk	290 grains	20.0 grams
Cold water to make.	32 ounces	1.0 liter

bath. 3) Follow strictly the time-temperature recommendations included with your developer. Make sure that developer, stop bath, fixing bath, and wash all are the same temperature. (About five degrees variation between solutions is the most you should allow.)

There are many excellent finegrain developers on the market, both in powdered form you can mix yourself, and as ready-to-use liquids. For those who like to make their own developer we have included two easy-to-prepare, dependable formulas—one for fine grain, the other for maximum speed. D-25 makes a good finegrain developer for normally-exposed negatives; D-76-F increases film speed (with some increase in grain) and makes possible pictures by poor light.

A good enlarger is a must if you want quality, large-size enlargements from 35-mm negatives. Make sure that lens and film are free from dust before printing, and double-check to be sure the film lies flat in the negative holder. If scratches show up, try wiping a little vaseline across the film.

Processing 35-mm is a challenge. This exacting technique calls for practice, patience, and constant attention to details before you can win success. But there's nothing mysterious or impossibly difficult about it. Anyone who is willing to take pains with his work can turn out high quality 35-mm negatives and enlargements.

continued

35 mm COLOR SLIDES

Projection is most effective way of showing 35-mm color slides to several people at once.

THIRTY-FIVE MILLIMETER color photography is such a popular pastime that it's practically a self-contained hobby in itself. The reasons for this popularity aren't hard to find: in the first place, the cost is within range of most budgets—about 17 cents per picture; it's easy to do if you follow a few simple rules concerning exposure; mounted slides can be projected on a screen and enjoyed by the whole family at once; and you don't need a darkroom unless you are interested in processing and prefer to develop your own Ansco Color film for an hour and a half. The easiest if not the most fascinating way is to drop it off at your favorite commercial color finisher. (Kodachrome, of course, goes to Eastman's own processing laboratories.) Most important of all is the satisfaction and excitement of shooting pictures in real-life colors.

When you use 35-mm color, your end result is a set of 35-mm color slides which are returned to you in 2x2-inch slide-mounts ready for projection—unless you ask the finishing lab to send them back in continuous 35-mm strip form for use in strip-film projectors. If you don't care to project your color slides, you can look at them in handy magnifying viewers or have them enlarged in the form of color prints in sizes ranging from 2¼x3¼ to 8x10, and larger.

Many 35-mm camera owners insist that it's as easy if not easier to get consistently good results in color as in black-and-white. This claim isn't too difficult to believe when you consider the fact that daylight-type color film is balanced to give optimum results in full sunlight. A safe average basic exposure for full sunlight is 1/50 second at f/6.3 (about half-way between f/5.6 and f/8). Color photographers (*Continued on page* 118)

BASIC EXPOSURE FOR COLOR

1/50 second at f/6.3 in bright sunlight

If in doubt, "bracket" your subject by making one shot at ½ lens opening larger, and another at ½ lens opening smaller.

Still life, also shot by Flatow, was photographed in natural light.

Brooklyn Bridge at evening provided Herbert Flatow with this beautiful shot. He exposed for 6 sec. at f/6.3 on Kodachrome Type A film to emphasize blue of shadows.

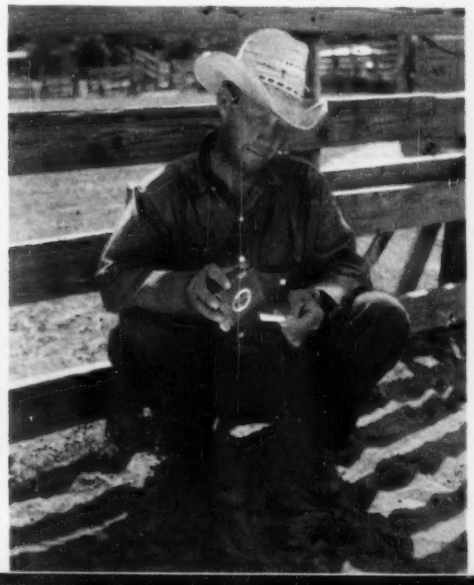
No wonder 35-mm color film is so popular—it's simple to use, versatile, exciting!

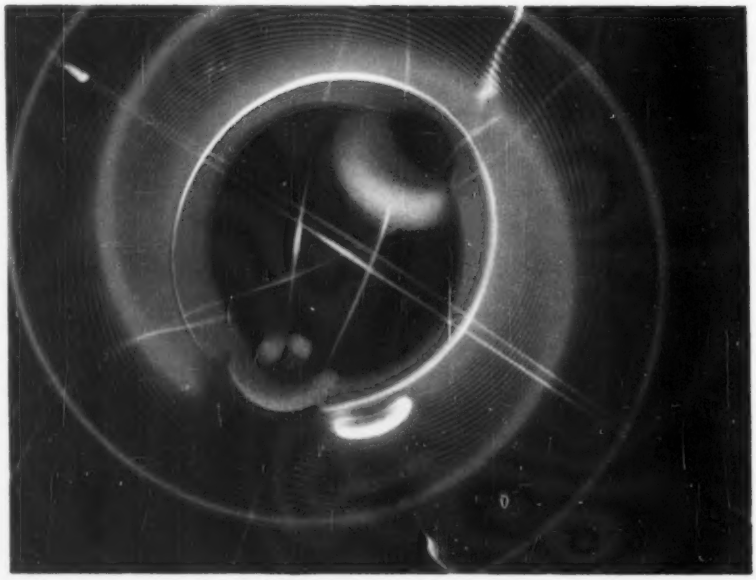
The Kodachromes reproduced here give some idea of what you can do with 35-mm color film, and help explain why an estimated 90 percent of miniature camera owners use their equipment mostly for color. Not only people, buildings, and still lifes, but fires and crowded street scenes can be recorded effectively on color slides that reproduce life with sparkle and realism. Good results are easy to get if you compose with imagination and expose with care.

Busy Street, by Sam Vogan, shows realistic use of color. Exposure was 1/50 sec. at f/5.6.

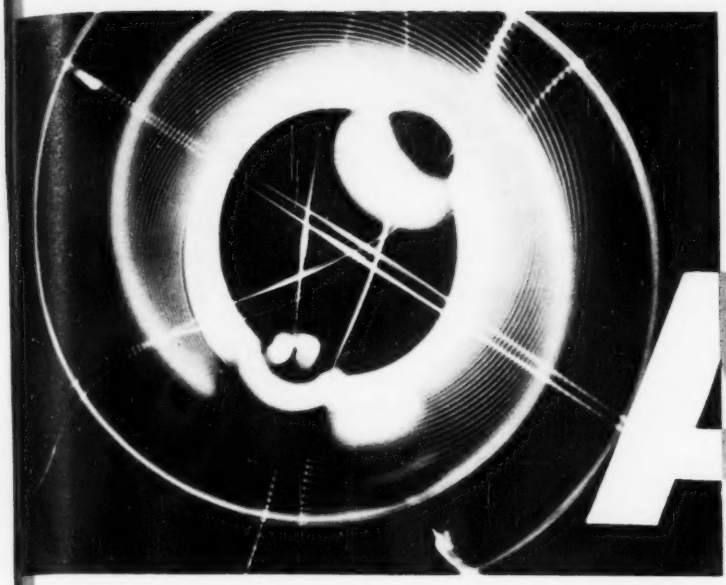
Burning High, shot by M. L. Nichols with a Perfex, was exposed for 1/100 sec. at f/4.

Cowpuncher made fine candid portrait subject for Konstantin Kostich and his Bantam Special.





Willard Conrow in "Time and Face" (above) attempts to translate into visual images the idea that time conquers all things. Here real objects are distorted and used as symbols. "Color Rhythm" (left) is a pure abstraction, using no identifiable subject matter, intended solely to give visual enjoyment to the observer.



Adventures IN COLOR

There are frontiers beyond realism waiting to be explored, and Willard Conrow points the way up one exciting road

EVER SINCE Daguerre, photography has been an exciting adventure. In the beginning the medium was hemmed in by almost impossible limitations, which were to be defied and conquered by adventurous men. Step by step horizons were pushed farther and farther back, and with each new conquest, new frontiers were opened up for exploration in the long quest for creative freedom.

Today the quest continues. Color film has opened new frontiers and at the same time imposed new limitations. Still, photographers seek new ways to express themselves, and these are adventures of the first water. It is not easy to express ideas with color film, but there are always men like Willard Conrow of Pasadena, Calif., who are in there trying. Conrow not only scoffs at the notion that color film imposes limitations, but proceeds to use it to express abstract ideas.

Conrow refuses to be bound to literal presentation of subject matter, and pushes his camera up imaginative roads, producing symbolic pictures like those on the facing page. Whether you like these pictures or not, they are adventures—adventures of a mind with a camera—and as such are worth studying.

The idea is the thing. Take for example the idea of man's struggle with time, and the futility of trying to escape from it. Hackneyed? That's precisely why it needs a mind like Conrow's to see it from a new angle and say it in a new way, as he has done in "Time and Face."

The face, the watches, the pearls, the dice are all things we see every day, things to which we customarily attach literal meanings. A face means a loved one, or just somebody in a crowd. A watch means time to go to work, or time to eat or sleep. Pearls mean wealth and elegance, and dice stand for chance. But to find in the picture all that Conrow has put there, we need to shake ourselves free of these literal meanings.

The mask could represent all men. The blank watch faces might symbolize infinite time. The pearls could be, as Conrow says they are, "elements of life and space," and the dice might signify inevitable defeat and futility. The photographer's method here (*Continued on page* 101)

Flash photography for e

An expert demonstrates graphically how easy it really is to get good results with one, two, or three bulb setups with and without synchronized equipment

By HERBERT GILES

HAVE YOU ever made a flash shot . . . discovered how fast, easy, and economical it is to use "bottled sunshine?" Whether you're a tyro or a veteran, you'll be interested in a simplified plan for flash photography that I've worked out over the past 10 years, and which has enabled me to get consistently good results with a very minimum of equipment.

But first, here's what flash does for you: (a) It gives you enough light for fast action-stopping shutter speeds plus small lens openings for maximum depth of field; (b) being compact, it is easily carried; (c) it makes you independent of current supply and existing lighting; (d) you don't need an exposure meter for flash; (e) you need no tripod, if a synchronizer is used, and thus can move freely for best camera position.

Now, about equipment. For Open Flash (which simply means set the camera on a tripod, open the shutter, fire the flashbulb, close the shutter) we will want a shutter with Bulb or Time setting, tripod or other support, battery case and reflector. For synchronized flash, we'll need a camera with synchronized shutter or an accessory tripping device, battery case, reflector, and a three-foot cord. Additional desirable accessories include: Ten-foot length of electric cord with male plug on one end (to fit battery case extension outlet) and a 3-way outlet on the other end; one midget bulb adapter (2½-inch length) for each midget flash source to be used; clamp-on bowl reflector (mine has a diameter of nine inches) with 10 to 20 feet of extension cord attached; light stand.

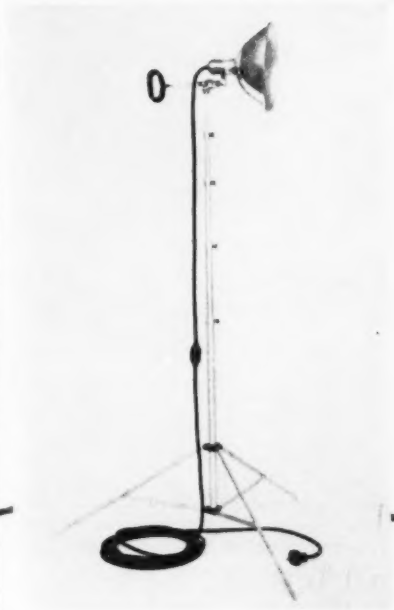
For a practical demonstration of the versatility and simplicity of this equipment, I'd like you to join me at the home of Mr. and Mrs. Walter Bergmann of Mount Vernon, N. Y., whose family and friends were having a get-together while I took pictures—shown on these and the following pages.

Photographs by the Author

or everyone...

Simple flash work needs only camera, solid support, and hand-held flashgun (for open flash), but desirable accessories include the three shown left and below. At left is an extension link, which consists of 10 feet of electric cord (No. 16 gauge) with a male plug (to fit battery case extension opening) on one end, and a 3-way outlet on the other. (Giles uses a white outlet plug because it is more readily seen on dark floors). This link allows you to use additional flash to improve modeling, light backgrounds, and to simulate source lighting by plugging in room fixtures.

One midget bulb adapter (2½-inch length, costing about 59 cents) will be needed for each flash source planned. Midget bulbs are cheaper, take up much less room than the standard base variety, and their light is adequate for most shots. For instance—to make a comparison with a photoflood light source—on an average scene where one midget flashbulb provides enough light for an exposure of 1/200 sec at f/16, the use of one No. 2-A Reflector floodlamp would necessitate an exposure of 1/25 sec at f/3.5. You can immediately see the advantage of flash here.



Socket, bowl reflector with spring clamp, and 10 to 20 feet of cord attached (costing about $3) combines to make an extension flash fixture which can be clamped to any suitable projection for best lighting results. Lightstand gives the photographer more freedom in placing clamp-on. The aluminum telescoping stand shown cost about $15, but suitable ones can be purchased for as little as $2. Now, with this review of needed equipment in mind, let's turn the page—where the author shows how he uses such equipment, and the variety of pictures possible with it.

Continued →

pictures with one flashbulb

RELAX for a few minutes with us now at the home of the Bergmann's while we get out the equipment and show you how versatile, positive, and result-producing flash is. But first, let's meet the happy group (bottom of page, left): Mr. and Mrs. Bergmann are seated on the davenport, their daughters Marilyn and Beatrice are at the ends, and Tom Waters is on the arm of Marilyn's chair. Herb Stevens acted as photographer so he's behind the camera in the smaller pictures. Now, we're all set to discover the enormous flexibility of

open flash

Any camera with "B" (bulb) or "T" (time) shutter setting suffices (even most box cameras are thus equipped). Put camera on tripod, frame and focus scene, open shutter, fire hand-held flashgun, close shutter, and picture is made. Subjects must be reasonably still because flash duration may be as slow as 1/25 second. Group below was shot on fast panchromatic film, open flash, at f/22.

attached flash

Synchronized flash (either mechanical, electrical, or built-in) trips the shutter and fires the flash at the proper moment. This allows faster shutter speeds and thus the tripod can be eliminated. Fast action of the dance was stopped, but its spontaneity preserved, with a shutter speed of 1/250 sec at f/22. Flash shield minimizes remote possibility of injury if a flashbulb shatters.

single midget flashbulb photography and to learn how much light-punch one of these little bulbs packs. Flash makes us independent of the sun and of electrical outlets—we can shoot in an isolated cavern at midnight. We need carry no heavy gear—just a camera and synchronizer; or camera, tripod, and flashgun for open flash. We have positive light control—no need to allow for light variations (the output of one bulb is exactly the same as that of another of like specifications). One mighty midget bulb throws off so much light that six feet from the subject it outshines the sun. Thus we have enough illumination so that we can stop down our diaphragm for adequate depth of field, we can use faster shutter speeds to near-freeze a snappy dance action, or capture the peak of a facial expression . . . and we can bounce the light off the ceiling or wall to achieve that softer available-light effect. Follow through on the taking of each of the one-bulb flash pictures shown here, and then turn the page and see the equally delightful results possible with two-bulb and three-bulb arrangements.

off the camera

Flashgun removed from the camera gives photographer more control over modeling, results in greater feeling of depth and roundness. Here the flash, held high and to the right, throws head shadow low so that lighter wall gives separation to the hair, and captures spontaneity of Beatrice's expression as she locates a piano number she wants mother to play; 1/250 at f/16.

bounce flash

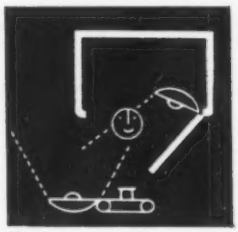
Bounce flash was used on this shot to give it a soft, room-lighted quality and to balance the flash with the light streaming through the window. Correct exposure for the daylight was 1/25 sec at f/5.6—flash simply acted as fill-in. So that the bulb wouldn't burn out the foreground in the low-ceilinged room, the photographer directed it toward a corner in back of him.

Continued →

two flashbulbs

WHILE single flash will be found adequate for many excellent pictures, as you have just seen, the use of an additional bulb or two will provide all the light variations possible in even the most extensive studio. Here we have illustrated such techniques as using a second light on the background to set off the subject, simulating source light such as that from a floor lamp or from the interior of a refrigerator, accenting the principal subject and suppressing the foreground, edge-lighting the subject for interesting effects, and using three bulbs in a combination of source lighting, back- (*Continued on page* 106)

A



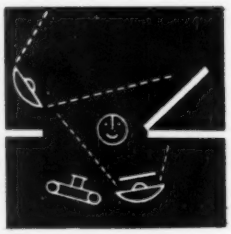
B

A Canasta game took two bulbs—main source off camera, right, fill-in in bridge lamp, plug of which is connected to synchronizer through Extension Link.

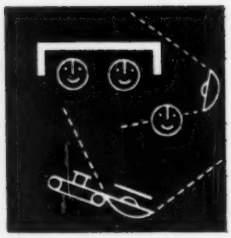
B Source lighting is simulated by replacing refrigerator light with flash, plugging ice box cord to synchronizer through Link. Fill is at camera.

C Extension flash lights background and makes subject stand out. Handkerchief over main light cuts output half.

D Center of interest is accented by setting main light high right, as though from a tall window. Camera fill is reduced with handkerchief to subordinate foreground.



C



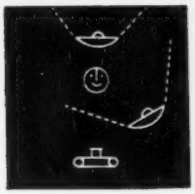
D

variations with two bulbs

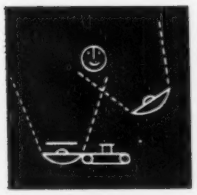
E Background gets flash impact from behind subject, who is lighted with second bulb, from right.

F Here main source is at right, fill-in (with handkerchief over flashbulb) is just over camera lens.

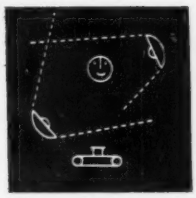
G Edge-light on hair and shoulders comes from high reflector at rear. Principal source is off camera at left.



E

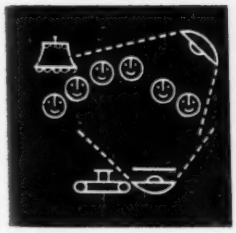


F



G

three flashbulbs



H

H Fun of a home movie projection party is captured in this three-flash shot. One bulb is in the floor lamp, left, a second gives backlighting from high at right rear, third is at camera. Lens is shielded from backlight. Scene is underlighted to simulate darkened room. Giles set scene, subject at left tripped remote control shutter.

key to flash exposure, page 106

EXCELLENT TECHNIQUE **Munkacsi's** shutter speed of 1/500 second stopped this horse and rider cold. Lighting, exposure, and print quality are also excellent, but the result fails to rise above the level of an ordinary photograph.

DON'T LET TECH

Photographs by MARTIN MUNKACSI

Can perfection be disastrous? This photographer says it can, and proves the point with eight examples of his own work. Do you agree with him?

osure, and
hotograph.

EXCELLENT PICTURE **Sweeping** his camera in the direction of nandu's flight, Munkacsi avoided obvious treatment and conveyed feeling of motion by blurring background and bird's feet with relatively slow shutter speed of 1/200 second.

CHNIQUE KILL THE CAT!

CSI

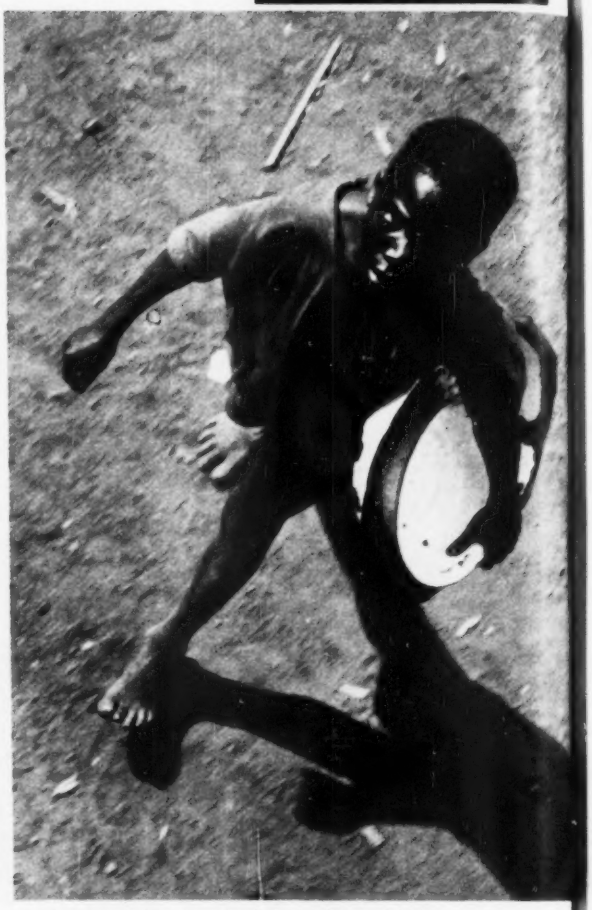
IT'S A question as old as photography: What makes a picture good? Can technique save a weak photograph—and does it sometimes ruin a good one?

Martin Munkacsi insists that technique must follow content—it must be a servant, not a master. When it dominates the imagination and becomes more important than the creative eye, the photograph is doomed. "It is the picture's content, the message, that is important, not the way it is delivered," he says. "So long as the message arrives in good order, it doesn't matter how it is conveyed." He illustrates his point with the four pairs of pictures on these pages. In each case a technically good photograph faces one which has distinct shortcomings. But without exception, Munkacsi feels, the "good" ones are dead and dull, while the "bad" ones vibrate with life.

What accounts for this paradox? Let's look at the pictures. In the photograph of the horse trotting in the surf on the opposite page, a fast shutter has caught the animal in motion. The composition is good and the lighting is excellent. But there is something lacking. Just what it is we

EXCELLENT TECHNIQUE

EXCELLENT PICTURE



Achieving depth of field in a moving subject like this was phenomenal feat in 1921, before advent of fast emulsions, yet picture is commonplace besides that of small West African native boy, in which Munkacsi managed to catch spontaneous feeling of suspicion. Here imperfect technique contributes to picture's success.

may not know until we hold it beside the shot of a running nandu—a kind of ostrich of the Argentine pampas. Here all is a galloping blur; motion is the essence of the picture, and a rather slow shutter with the camera sweeping in the direction of the bird's movement has preserved it for us. Motion is the "content" of both pictures, and all the sparkling quality of the horse and rider could not save it from mediocrity.

When high-speed films were unknown, a subject like the Budapest bather presented problems in exposure and depth of field. Munkacsi could have taken pride in his 1921 technical success, but the picture does not please him—or us—as much as the one he made of a small boy in West Africa. In this case again, motion is emphasized because it has not been "frozen."

The two Southwestern Indians Munkacsi found in Tucson look in this picture just as they have looked in a thousand very good tourist snapshots. There is imagination again in the lighting and composition, and exposure was obviously perfect. But all this technique does not succeed in removing the superficial quality of the resulting picture. Look now at the two ragged Persian shoe-shine boys. It's a shot Munkacsi must have made in a hurry, without the time or inclination to worry about technique. The composition is weak, and the background is haphazard—but the boys are *there*, as surely as if they were standing before you.

The two Negro laborers who posed for Munkacsi's studio photograph were well made-up, artistically arranged, and shot from an angle which gives them a feeling of strength. But they are, after all, posing—not poised for hard labor. Beside the straining oarsmen, they are inanimate objects. There is spontaneity here which no amount of forethought and perspiration on the part of the photographer can simulate.

A lesson in all this? Munkacsi thinks so: Learn technique thoroughly—and forget it. "Technique is cold, content is warm," he says. "Warm human emotions, when subjected to the cold, metallic rules of so-called technique, become useless to photography." Pictures that live are not made "by the book" but with the heart.—

EXCELLENT TECHNIQUE

EXCELLENT PICTURE

Sidelighting, careful focus, and perfect exposure fail to save this photograph of Arizona Indians from stiffness and artificiality, while a few violated rules helped communicate a sense of Near East's hustle and bustle in picture of Persian bootblacks. "Distracting" background adds authenticity.

EXCELLENT TECHNIQUE

EXCELLENT PICTURE

Munkacsi perspired more than the "laborers" in this picture to get make-up, composition, lighting, exposure exactly right, but failed to get across his message believably. Unposed, genuine shot of oarsmen says more about man's work in spite of bad lighting, unplanned composition, and graininess.

Picture coverage of the White House is tough, exacting, comprehensive. The President's every move may have significance—whether he boards the *Williamsburg* (above) for a cruise down the Potomac, or simply writes letters. This is the challenge met daily by the author.

Bruce Hoertel has made a name for himself on the nation's most competitive camera beat.

HEADACHES OF A WHITE HOUSE PHOTOGRAPHER

By BRUCE G. HOERTEL

Staff Photographer in Washington of *The New York Times*

Fanatics shoot their way to Blair House in an attempt to assassinate Truman—and Photographer Hoertel's ready camera captures the macabre drama. The picture, showing a guard sheathing his pistol over wounded Oscar Callazo, won first prize in spot news in White House photographers' contest.

IT WAS PLEASANT in the White House press room that sunny afternoon last November. As the Washington news photographer for the *New York Times*, I'm kept jumping most of the time and the morning had been busy primarily with Presidential callers. But now they'd all left, and the President himself had gone across the street to Blair House for an afternoon nap.

There was nothing coming up except a routine monument dedication at Arlington National Cemetery—the President was to honor a British military hero. As the time approached, I nonchalantly gathered up my gear and climbed in an auto with other photographers. Slowly we drove along beside the White House grounds, and neared the stop light at Pennsylvania Avenue, just a few hundred feet from Blair House.

Suddenly shots rang out . . . then shouting. Instantly, the word "assassination" flashed across our minds as we grabbed our cameras and fell over each other leaping from the car. My nerves tensed as I galloped toward Blair House entrance and took in the scene. One wounded White House policeman, with pistol drawn, was down on one knee in the middle of the avenue. Another officer lay near death at the guard's box at adjoining Lee House. Bodies of two civilians were nearby.

For a split second, a wave of relief swept through me. I saw that none of the victims was the President. Then, methodically, I began to bang away with my camera. First, I photographed the would-be assassin at the foot of the steps leading into Blair House, then the dead assailant who had toppled over a boxwood hedge and died in the grass plot nearby.

From there, I made a shot of the dying White House guard, the officer in the street, and a view of the Blair House as secret servicemen and police swarmed the scene.

Later I realized I had taken thirteen shots in fifteen minutes. With one of these, a picture of a guard replacing his pistol over the body of one of the assailants, I captured the coveted first prize in the recent White House Photographers' annual contest. Subsequently, I was congratulated by the President him-

Dignitaries often are on Hoertel's agenda. Here are Mme. Chiang Kai-shek and Mrs. George C. Marshall leaving Blair House after Mme. Chiang pleaded for Nationalist aid.

self for having won top honors in the contest.

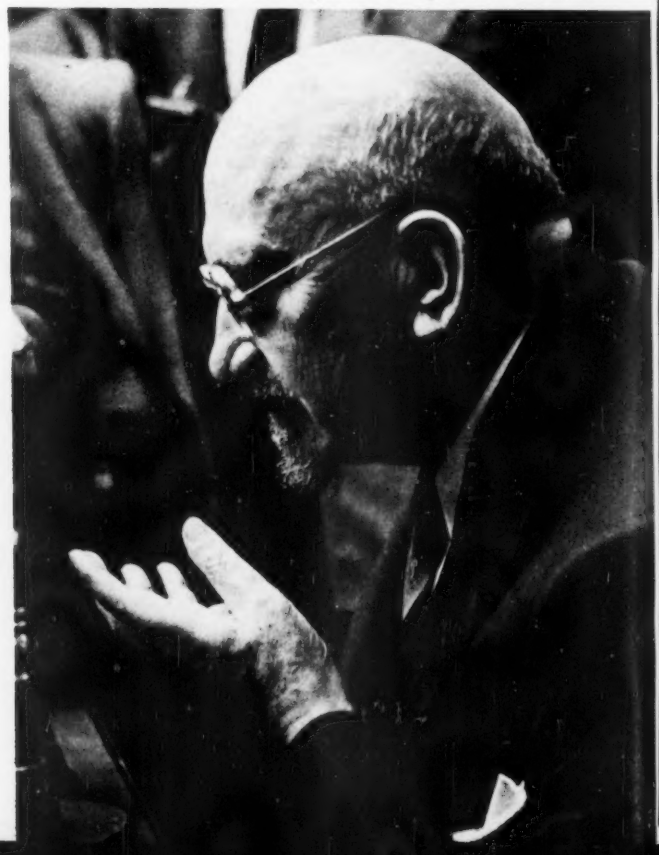
True, this does not happen every day—and a photographer never knows when to expect something hot to break. This is one of the main difficulties which make White House coverage a headache, yet exciting. But it's not only a shooting that makes news at the White House . . . for virtually anything that happens there is of interest. The eyes of every citizen are always focused on this white building on Pennsylvania Avenue. For that reason, every presidential move, action, or utterance is significant. A congressman, for example, may express his opinion on the world crisis and get two paragraphs in the paper. The President, however, may do the same and get two columns. Indeed, White House coverage is definitely of great importance.

In short, this photographic coverage involves keen competition, unforeseen events, photographic limitations, and, at times, unnerving hazards. The day begins calmly with the presidential appointment list on the press room bulletin board. This hints at what to expect each day at the White House, but it does not clearly disclose the difficulties and hardships of daily coverage.

For one, I'm faced with the problem of many competitors. (Actually, there are 130 very active news photographers covering the White House). My principal competition for instance, a wire service, has a staff of ten men. It is not possible for me to devote my entire working day at the White House, because my job is to cover all of (*Continued on page* 145)

Keen competition demands, and inspires, pictures with extra impact—so Hoertel chose dramatic available light to depict General Eisenhower testifying before a Senate group.

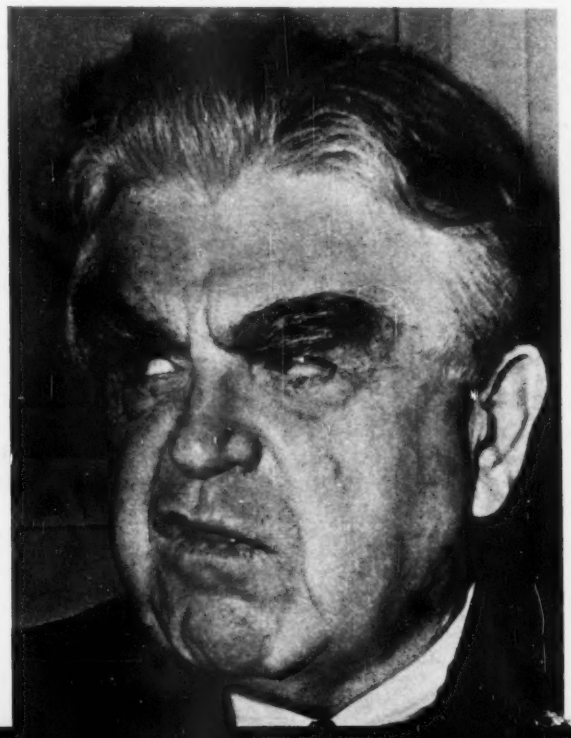
Supplemental flash was taboo when candidly shooting Chaim Weizmann, Israel's first president—it was feared sharp brilliant light would hurt his eyes. Hoertel took the picture in the garden at Blair House.



Gesturing vehemently, Senator Guy M. Gillette of Iowa demands a higher code of ethics in Senatorial elections. This shot earned Hoertel top award in personalities in the White House picture competition.

Benjamin F. Fairless, U. S. Steel chief, strikes angelic pose in midst of bitter debate in Senate committee hearing on steel prices—and Hoertel's alertness records the fleeting instant.

Scorn molds the face of UMW's John L. Lewis as he glares toward management's corner during a nationwide coal strike dispute—and Hoertel gets another shot of national import.



By ROBERT HERTZBERG

Making big prints from small negatives is half the fun of photography . .

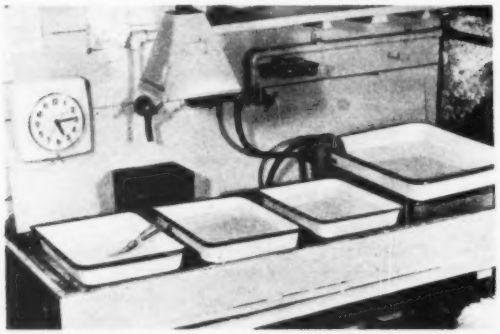
ENLARGE your pictures

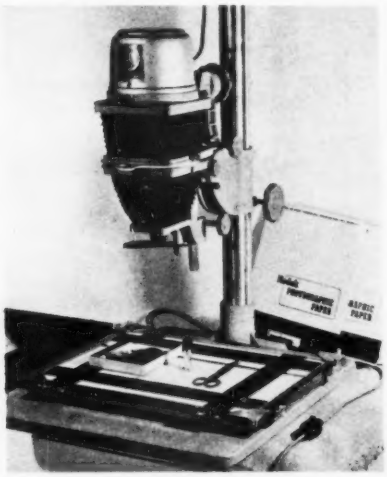
MAKING large prints from your negatives is an exciting experience, for many a fine picture "hidden" in an ordinary contact print is awaiting discovery on the easel beneath the enlarger. It has been said that "the film comes out of the camera, but the picture is produced in the darkroom." This is true, for enlarging is a challenge to the skill and imagination of the individual photographer.

A good print has technical perfection as a basic ingredient, so establish a definite darkroom routine and use it often. Soon you will perform numerous steps without thinking, and your major effort will be spent on the end result and not on the method involved. Cleanliness should be the watchword. Rinse trays before use, filter the solutions through cotton, avoid splashing, beware of dust and finger prints, and keep hands clean and dry when handling negatives and sensitive paper.

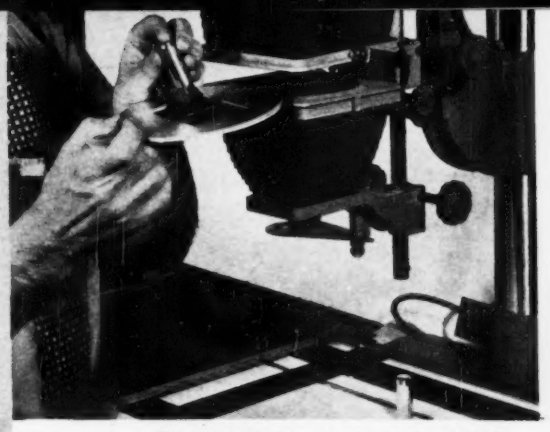
Remember that a good enlarger is a long-term investment that pays off in satisfying pictures. Your dealer will advise you according to the size negatives you make. He will also provide paper in two or three grades, necessary chemicals and instructions for mixing developer, short-stop, and fixing bath, and any accessories you may want.

This picture story shows each important step in making an enlargement. Follow it and you'll have no trouble mastering this fascinating process.—

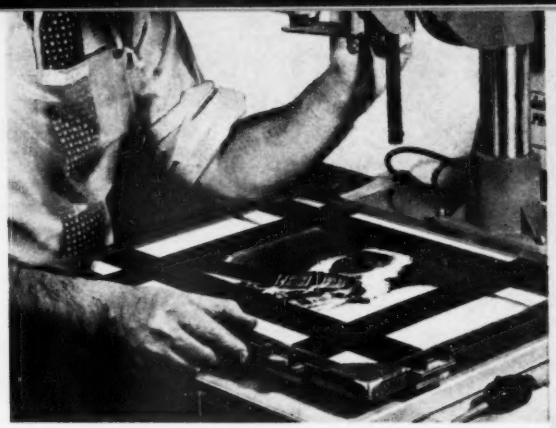




Wet section of darkroom, above, has sink, trays, print washer, safelight, timer. Dry area accommodates enlarger, easel, supply of paper, right. Immaculate cleanliness and good order are the first requisites for sparkling, spotless enlargements.

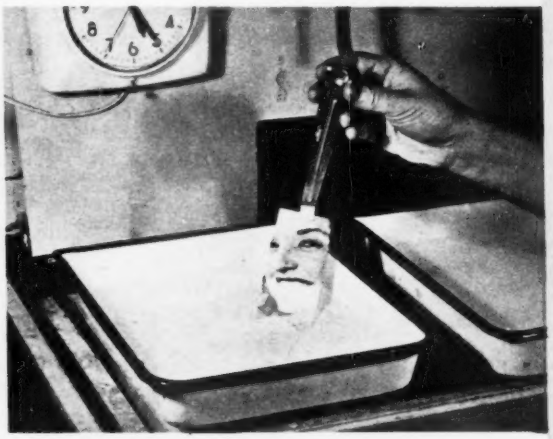


1 **First select** the negative to be printed; dust film carefully with a soft camel's-hair brush to remove foreign matter, then insert negative with emulsion (dull) side down, facing enlarger lens.



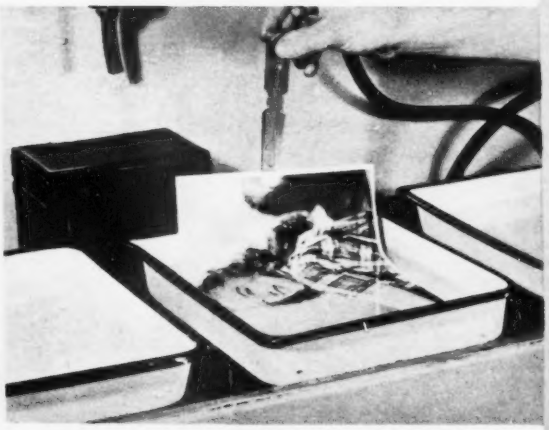
2 **Turn on** enlarger lamp. With lens aperture wide open, adjust height of enlarger head to produce image of desired size. Rack lens assembly up and down until maximum sharpness is achieved on easel.

3 **Test strips** provide easy way to determine correct exposure. To make them, cut a sheet of each grade of paper into 2-in. strips. Expose No. 2 strip across portion of image for about 10 seconds.



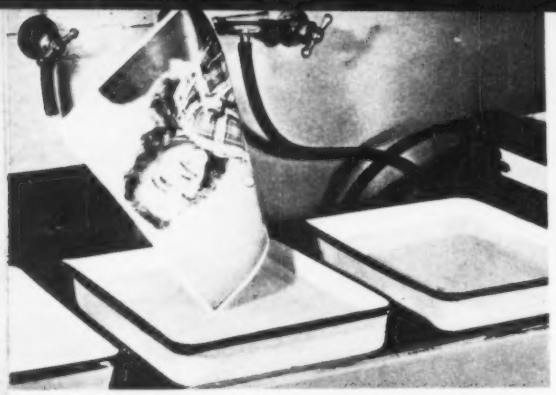
4 **Develop** strip and note time it takes; if too light or dark, adjust lens opening or use more or less exposure time; if too flat or too contrasty, try a harder or softer grade of paper.

5 **Proper paper** is exposed under enlarger for correct time, then put in developer. Grasp paper at edge, slide into solution with quick motion, wetting entire surface at once; then rock tray gently.

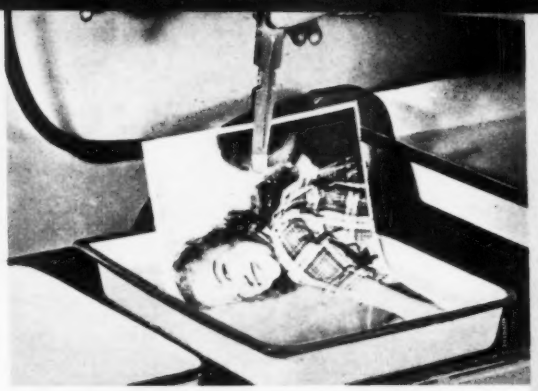


6 **When image** is fully developed, remove print from developer with tongs, immerse it in stop bath and agitate for 10 seconds. This solution stops developing action and makes job of fixer easier.

CONTINUED →



7 **Suspend** print over stop-bath with tongs until all excess drips back into tray. Hypo solution will last much longer if not contaminated by developer or continually diluted with the short-stop.

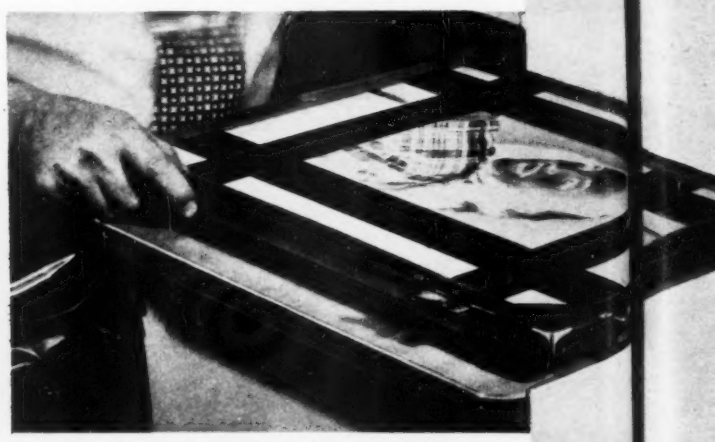


8 **Fixing** follows. Immerse print in hypo and remove any bubbles that may adhere. Normal time in fresh solution is about 10 minutes; you can work on other pictures while this one is in final bath.

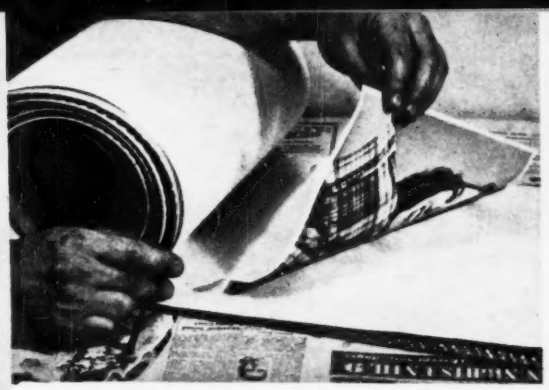
9 **Drain print** of excess hypo by holding it briefly over fixing bath before transferring it to large washing tray. This will help to conserve solution; it can be kept indefinitely until exhausted.

10 **Washing** is equally important step; 30 to 60 minutes in running water insures permanent fadeproof prints. Stream from siphon attachment should be fairly strong to keep prints moving about in tray.

11 **First print** is examined under white light; this one shows that picture of attractive girl can be improved by eliminating shadow, right, and part of arm—done easily just by making larger print.



12 **Bigger** image results here when enlarger head is raised. After re-focusing, new test strip is made as light intensity is less at new height; correct exposure is determined and final print made.



13 **Blotter roll** is handy device for drying matte prints. They are placed face down on linen strip, then rolled up with the blotter strip and corrugated; latter permits air to get between layers.

14 **Roll is tied,** put in dry place overnight; circulating air carries away moisture, and process can be hastened by directing small electric fan at roll. Avoid use of heat, which may ruin prints.

Finished picture of top quality is sure sign of competent craftsman and spotless darkroom.

POPULAR PHOTOGRAPHY

HAS THE HONOR TO PRESENT

THE NADARS

OF PARIS

PHOTOGRAPHERS EXTRAORDINARY TO THE BEST PEOPLE

IN

a remarkable portfolio of prints of great beauty and verisimilitude from a private collection here released for the first time by the kind consent of the distinguished fashion photographer, HORST.

FEATURING

PORTRAITS by the great NADAR

and

PARISIAN PINUPS by his celebrated son, PAUL

EDITOR'S NOTE:

The following photographs are published through the courtesy of Mr. Horst, who purchased them from Madame Paul Nadar.

Line engraving courtesy George Eastman House

Nadar

père et fils

The elder Nadar and wife aloft

Victor Hugo, author of "Les Misérables" and "The Hunchback of Notre Dame," sat for long exposure in Nadar portrait.

THIS two-thousandth birthday of the City of Light is a good time for photographers everywhere to salute Paris, home town of Daguerre and Niepce, inventors of photography, and of one Gaspard Felix Tournachon, medical student, novelist, artist, journalist, and balloonist, who, midway in the 19th century, changed his name to Nadar and thereafter wrote it indelibly upon the scrolls of photographic history as one of the great portrait photographers of all time.

The wonderful portraits reproduced from original prints on the following pages will leave no doubts on that score. He was a genuine master of the camera, who revealed the character of his famous sitters with unerring insight. The men and women who came before his slow lens were completely relaxed and at ease.

"Nadar has never been surpassed," says Horst, from whose private collection these portraits were selected. "He understood the medium of photography better than anyone ever has. His approach was amazingly direct. He resorted to no tricks, and his concentration on the subject was fantastic. You never notice the background of a Nadar portrait. What you do notice is the living presence of the person who is presented to you with the utmost realism."

Nadar was a pioneer of the first water. A true trail blazer, he not only excelled in portraiture with cumbersome camera and collodion wet-plate paraphernalia a dozen years after Daguerre published his invention, but took to the air with all that stuff and became the world's first aerial photographer ten years later. This was, indeed, no timid man. As the winds blew over the chimney pots of Paris, Nadar struggled to prepare his plates. And although adversity pursued him relentlessly, he succeeded in photographing the Arc de Triomphe for the first time as the birds saw it.

This master of portraiture, who held that a good portrait study could not be made unless the photographer were closely acquainted with his subject, was a pioneer also in the use of artificial light. His pictures of the bone-strewn, skull-haunted Paris catacombs, made with primitive galvanic arc lights—the first electric illumination ever used in photography—remain macabre monuments to Nadar's

Balzac was one of Nadar's first models. This print was made from a daguerreotype, signed with title Nadar earned in balloon corps.

Gustave Courbet, the celebrated painter of landscapes and forest scenes, was a close friend of Nadar, sat for this revealing portrait.

Bettmann Archive

Honoré Daumier, though on good terms with Nadar, scoffed at both photography and ballooning, lampooned them in blistering caricatures. Drawing above is titled "Nadar Raising Photography to the Height of Art." Nadar's study of Daumier is shown at left.

George Sand was prolific novelist and distinguished amateur courtesan.

rare originality and fruitful imagination.

He began his career as a medical student, but quit, as so many others have had to do, when the money ran out. Then he went into journalism, and adopted the pen-name of Nadar for his articles and drawings. It stayed with him, and he passed it on to his son. One day a friend mentioned photography to him; there was good money to be made in it, and the friend knew just where Nadar could get a complete outfit cheap. After days of debate with himself, he bought it, but for many months he was tortured by the idea that he was betraying art.

By the time he opened his Rue St. Lazare studio in Paris in 1853, Nadar had already been training himself in portraiture for three years. He was one of the earliest established professional photographers; before him, the only way to make a career out of Daguerre's invention had been to travel about the country with camera and darkroom in a wagon or in a hiker's pack, astonishing the peasants at rural fairs with the magic of photography.

Since Nadar held the conviction that a good portrait can only grow out of close friendship and understanding between photographer and model, it is fortunate for posterity that his circle of friends was broad, and drawn from the cream of European intellectual and political society. He knew the writers Balzac, Baudelaire, Gautier, George Sand, Hugo, Murger, Lamartine; the composers Wagner, Rossini, Meyerbeer; the artists Delacroix, Daumier, Courbet, Corôt, Doré; and political leaders like Kropotkin, Bakunin, and Leopold I of Belgium. The portraits he made of them proclaim the truth of his photographic

Théophile Gautier wrote "Mademoiselle de Maupin," was noted for his eccentricity of dress and appearance.

"Divine Sarah" Bernhardt won world acclaim as dramatic actress, is best remembered for her role in "Camille." Nadar père photographed her in youth, as she left the Conservatory. His son Paul made the costume picture, left, many years later when she was at height of her career. In trouper tradition, Bernhardt carried on with artificial leg until a year before her death.

philosophy and its importance to his work.

But Nadar did not work only with such notables. The quality of these portraits of writers and artists and politicians had attracted the attention of the aristocracy and the upper classes, returned to power by the ferment in French society. They now began to clamor for sittings with this acknowledged master of the camera, and it was they who made a financial success of Nadar's enterprise. His studies of them, almost without exception, testify that he never abandoned his integrity, never permitted himself to do bad work. Because of its penetrating, thoroughly honest portrayal of its time, Nadar's work has been likened to Balzac's in the *Human Comedy*.

A tribute like this is even more meaningful in view of the technical difficulties under which Nadar had to labor. His wet collodion plates had to be painstakingly coated in the darkroom, one by one, carried to the camera for the exposure—sometimes several minutes long—and whisked back to the darkroom for processing. The modern photographer reflecting on all this is surprised that Nadar had time to think of anything but the mechanics of his craft.

Most fascinating and dramatic of his contributions to photography was his work with captive and free balloons. It was daring enough, ninety years ago, to leave the ground in one of the big gas-bags, but Nadar thought

Gabrielle Réjane captured essence of French vivacity in her acting. Here Paul's assistant concentrates on the job at hand.

Inscrutable Middle-Easterner is Ferak Khan, Persian envoy to Paris peace conference which ended British-Persian strife in 1857.

Eugène Delacroix, leader of the Romantic movement in painting, fought social injustice, was inspired by poetry of Lord Byron.

Alphonse de Lamartine, poet and politician, was elected member of provisional French government after revolution of 1848.

so little of the danger that he could devote all his attention to his photographic equipment—which, heaven knows, demanded plenty of attention in that day of collodion plates and albumen prints!

For a magazine published by his son in 1893, Nadar wrote a series of memoirs of his first experiments with aerial photography. Both balloonists and photographers were skeptical of his efforts to combine the camera and the gas-bag. But Nadar answered them repeatedly with "Nothing is so easy as what was done yesterday; nothing is so difficult as what will be done tomorrow."

His balloon basket was quickly convertible into a flying darkroom. A big orange-and-black tent, impermeable to light, was suspended from the rigging above, and a smoky safelight was mounted inside. "It was warm inside," recalled Nadar, "but our collodion plates didn't mind, submerged in their cool baths."

He had designed his own "guillotine" shutter, and used it with a big Dallmeyer lens mounted vertically on the side of the basket. To give the rig as much stability as possible,

Napoleon III, nephew of the Little Corporal, ruled France for 18 years, was deposed in 1870, blamed for defeat by Prussians.

the anchor lines were made fast to the bag itself rather than to the basket. Nadar worked only on calm days, for his long exposures would have been ruined by the least motion.

Those early efforts would have tried the patience of a saint. Nadar made more than 20 ascensions and never got any more on his plates than a hazy smudge—not even the suggestion of a photographic image. He felt, understandably, that he had a right to at least a dim blur, but—nothing!

Then one day, in the suburb of Petit Bicêtre, he had trouble with the balloon itself. He had filled it with hydrogen the night before, anticipating an early start in the morning. But overnight the temperature dropped sharply, contracting the gas and leaving the bag pitifully shriveled. Nadar, however, was determined to go aloft; he threw out of the basket all the ballast and everything else he could do without. The cumbersome tent was left behind: he would do his processing later on the ground. This done, the balloon struggled to rise, bounded up once or twice, and settled sadly back to earth. Only a few more pounds would do the trick. Modesty was sacrificed to science—Nadar removed all his clothes and jettisoned them. Success! The balloon rose, slowly but steadily, to a height of almost a hundred yards.

Nadar made his exposures as usual, and developed the plates in his room at the village hotel. It was a (*Continued on page* 126)

"Jersey Lily" Langtry, clergyman's daughter, became the toast of two continents. Acting was not her only talent, and she broke hearts on both sides of the Atlantic. Not the least of them was Prince of Wales, later Edward VII of England. She poured champagne down his neck, made him swallow a flea with his wine, but her name is not included in cautious official biographies of the Prince.

Dapper Prince of Wales was plaything of Jersey Lily, but made firm, decisive monarch when he took throne.

Turn page for Paul's pinups

P. Nadar

parisian pinups

"Swallows," skinny for their day, braved snow for Nadar.

Stage beauty from Paris success "Niagara," this Lorelei reclines on her pedestal before painted sea, luring strong men to sure destruction.

WHEN Papa Nadar retired in 1880, he passed his business on to his son Paul, a gay young dog with an eye for a well-filled stocking and a taste for musical comedy. Paul lost no time in using his camera to exploit his theatrical connections.

He discovered (and uncovered) not only the stars but the lesser lights of the music halls—the ill-clad, underprivileged ladies of the ensemble, the hotcha girls, the *grisettes* and *demi-mondaines*. On these substantial beauties, Paul found photogenic lines and masses hitherto unrevealed by the camera. Snapped in the full glory of their bursting splendor, Paul's picturesque poses of their eye-filling curves were considered terribly naughty—and sold, naturally, like *pernods*.

In time, Paul's pinups graced dormitory, footlocker, and barrack wall. Many a student, gloomy over tomorrow's exams, many a general on the eve of battle, many a premier heading a tottering cabinet, gazed up at one of Paul's two-ton lovelies, blew a kiss at her delightful bulges and daring silk-sheathed gams, and took heart for the coming crisis. Who knows—perhaps such a picture may have saved France!

Here, then, is a selection of the hundreds of glamor girls photographed by the stage-struck Paul. Their identity has vanished with the years, but they are the graceful performers, the heart-throbs, the movie queens, the gorgeous babes of yesteryear—the Great Grandmamas of Cheesecake. Incidentally, in French, "cheesecake" is just something to eat; Paul's pinups would have been called *lorettes*, for St. Lorette, patroness of beautiful women.

Since Paul's slabs of old-fashioned cheesecake cannot be absorbed with a single glance, but must be looked at with both eyes, many have thought he must have used a wide-angle lens. This is mere myth. His was the same lens his Daddy used to photograph balloons.

Paul Nadar's skill lay in his ability to bring out all the hidden charms of *le beau sexe* of his day, and to give the gentlemen of the era what they liked in a woman—something to hang onto, a sense of solidity and security. The average girl in these pictures may seem to the modern male like a wasp-waisted meatball, but Paul and those who bought his work idolized every one of her massive measurements—her 40-inch topside, 30-inch midships, 57-inch stern, 160-pound displacement, and foam rubber upholstery.

"Women today may sneer at such figures," an elderly Parisian who knew Paul confided recently, "but what have the girls of today got that our great-grandmothers didn't have plenty more of? We liked our *poules* (we called them 'chickens' then, too) plump and tender. Today's women are like sharp bones with all the meat removed. They would have scratched Paul's negatives. He would have been *très dégouté!*"

Paul didn't spend quite every waking moment recording these devastating dolls for posterity. He is still known today for many of the photographic devices he invented or perfected: a magnesium flashgun, the "Express Detective" camera, the Photo-Chromoscope viewer, a self-cocking shutter, a darkroom safelight, and revolutionary rapid emulsions for plates and papers. Paul died in 1939, unheralded and unsung, without the tribute he deserved as baker of some of the world's earliest cheesecake.—*Ted Shane*—▶

Daring beauty hoists skirt to escape ravages of Nadar's studio rainstorm. In the seventies, this was enough to make strong Frenchmen twirl their moustachios and howl "Oo-la-la, oui-oui!"

Davy Jones' locker was never so well-stocked as this! Note hungry male fish at left about to nibble at nonchalant cheesecake.

Chorus line from revue called "The Chick that Laid the Golden Eggs" might be mistaken today for mainstays of Notre Dame line.

Half woman, half speckled trout, Lurline is right at home with finny friends in phony deeps. Note mustache-shaped eel hovering hopefully above.

pictures from readers

This page belongs to you, the reader. Your contributions will help us make it better. If you have a picture you're sure is good, please let us see it. Include name, address, and technical data. Pictures unsuitable for this department will be returned to the sender if sufficient postage is enclosed.

1

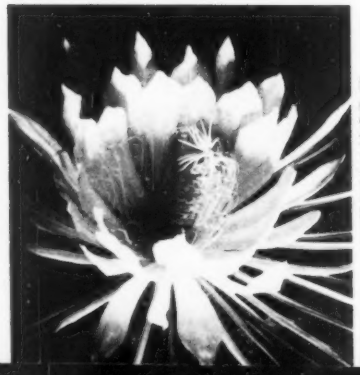
First star this month is awarded to this outdoor figure study made in Westport, Conn., by Robert Rahls of Darien. To make it he used a 2¼x2¼ Ciro-flex Model C which is equipped with an 85-mm Wollensak Anastigmat f/3.5 lens. Exposure, on Kodak Super-XX film, was 1/50 second at f/11. No supplementary lighting was used; the admirable modeling which gives the picture distinction was done with hazy sunlight only.

Pseudo-Arab, a studio portrait by Richard Santuci of Buffalo, N. Y., was made with a 3¼x4¼ Speed Graphic equipped with a 5½-inch Kodak Ektar f/4.7 lens. Three No. 2 photofloods furnished the dramatic lighting, and exposure was one second at f/11 on Ansco Isopan film. Model grew three days' beard and wore stage makeup.

2

Vernon E. Pettet of Santa Barbara, Calif., wins second star this month with a shot made at Long Beach with a 4x5 Anniversary Speed Graphic and 5¼-inch Kodak Ektar f/4.7 lens. Exposure, on Kodak Super-XX film, was 15 seconds at f/22.

J. W. Cox of Austin, Texas, photographed his daughter Teran Lee with a 3¼x4¼ Kodak Recomar camera and 135-mm Kodak Anastigmat f/4.5 lens. Subject was lighted by a No. 2 reflector flood and a spot. Exposure was 1/25 second at f/11 on Kodak Super-XX film.



Night-blooming cereus was photographed by Dayton Snyder of Clearwater, Fla. He used a 4x5 Speed Graphic which has a 135-mm Voigtlander Skopar f/4.5 lens. A No. 2 photoflood lighted the flower, and exposure, on Ansco Superpan Press film, was 1/5 second at f/22.

The Kodak BULLETIN

Wintertime . . .

TIME FOR ACHIEVEMENT

WHEREVER you live, winter's longer evenings give you more time for those darkroom projects you have promised yourself to complete.

Negatives that have piled up during the long summer days, pictures you made on your vacation trip, week-end picnics or fishing ventures, or just picture-taking jaunts . . . they are all waiting for just such moments as these long evenings bring you.

You probably have already made your record prints, but now is the time to look them over carefully, to decide how best to crop them, to experiment with different papers and different textures, with toning, or with color . . . now is the time for darkroom accomplishment.

On these pages you will find all the equipment, accessories, and materials you will need, all designed to make your darkroom efforts pleasant and satisfying. Your Kodak dealer will help you choose.

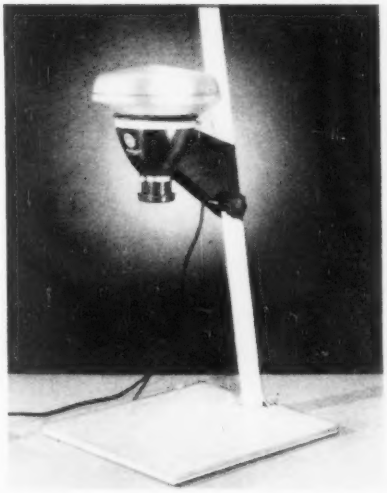
KODAK FLUROLITE ENLARGER is the one for the discriminating darkroom worker, no matter how high his darkroom objectives. The integrating sphere light source, with a ring-shaped fluorescent lamp, provides cool, even illumination with good printing speed, and excellent contrast for focusing. Diffuse source minimizes negative defects. Adjusting and focusing the enlarger has been made extremely simple and accurate through two-hand control. The knobs for focusing and elevating are so placed that both may be used at the same time. Universal distortion control is provided by a tilting negative carrier platform, and negative carrier which can be rotated full-circle. The large base and rigid steel column provide the utmost in rigidity and vibration-free performance. The deep all-metal base is a generous-size light-tight storage cabinet for paper or film. Various focal-length lenses can be used. The Flurolite enlarger can be used also as a view, copying, or slide-making camera and cine titler. Choose any negative carrier from 35mm. up to 2¼ x 3¼. Price, without lens, $112.50.

KODAK MASKING EASEL, 11 x 14. Designed for use with any vertical enlarger, it will mask prints up to 11 x 14 inches and can be adjusted for ½-inch to ¾-inch margins. Rapid, easy, and accurate insertion of the paper is made possible by a back guide which holds the edge of the paper down so that it can be correctly positioned against the end guide. Masking arms have new type spring clamp handles with wide base, assuring accurate right angles while still providing easy, instantaneous adjustment. A stand arm is provided to hold the outer mask off the board; it drops when the masking arms are raised slightly. Easel has warp-proof baseboard with non-slipping felt on the bottom. Price, $11.25.

ENLARGING LENSES. All Kodak enlarging lenses are *Lumenized* for maximum light transmission and are designed for the utmost correction at the close working distances used in enlarging and copying. The Kodak Enlarging Ektar Lenses, because they have special lateral and longitudinal color correction, are specially recommended for use when color requirements and definition are above the standards of normal photographic work. Any of the 2-inch, 3-inch, and 4-inch lenses can be used on the Kodak Flurolite Enlarger.

Kodak Enlarging Ektanon Lens	For negatives up to—	
50mm. f/4.5*	1 3/16 x 1 9/16 in.	$15.75
3-in. f/4.5*	2¼ x 2¼ in.	25.75
4-in. f/4.5*	2¼ x 3¼ in.	32.75
5⅜-in. f/4.5	3¼ x 4¼ in.	50.00
6⅜-in. f/4.5	4 x 5 in.	55.00
Kodak Enlarging Ektar Lens		
2-in. f/4.5*	1 3/16 x 1 9/16 in.	49.75
3-in. f/4.5*	2¼ x 2¼ in.	52.50
4-in. f/4.5*	2¼ x 3¼ in.	56.00

*For use with Flurolite Enlarger



KODAK HOBBYIST ENLARGER, at only $49.50 complete with lens, is just the enlarger you will want if you are just embarking on a darkroom career and on a modest budget. New cold light protects your negatives . . . flashes on at the touch of a button attached to the cord. New type glassless negative carrier simplifies loading of negatives up to 2¼ x 3¼ inches. Compact, light, the Hobbyist is ideal for use where space is limited.

NEW—*Kodak announces two great new enlarging papers*

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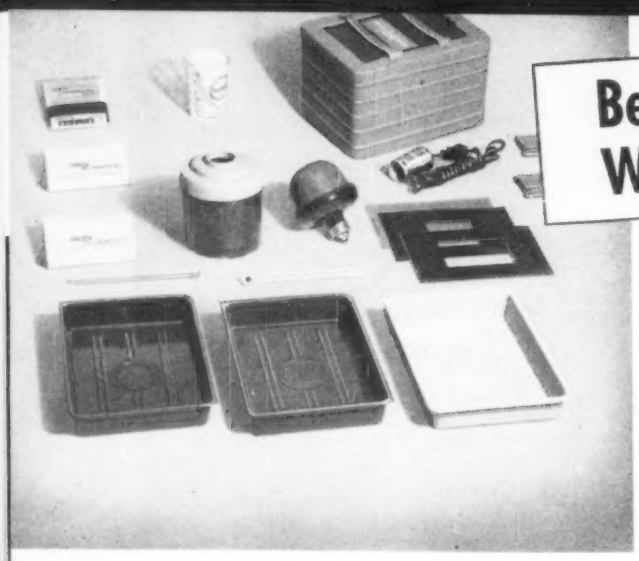
TRADE-MARK



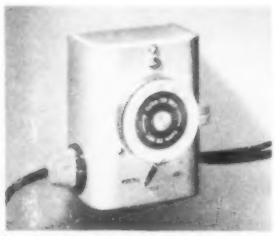
Better Pictures Come Easier With These Darkroom Aids

KODACRAFT ADVANCED PHOTO-LAB

If you're ready to begin your own developing and printing and can't wait until you get a complete darkroom set up, this is the outfit to start with. The contact printing equipment will fit right into your darkroom later. It contains all you need now . . . trays, chemicals, graduate, thermometer, safelight, paper . . . everything for developing films and making contact prints. And included is a fine contact printer and film tank. All yours for $13.95, including Federal Tax.

◀ **KODACRAFT PHOTO-LAB OUTFIT.** All the basic essentials for developing your negatives and making your own prints. You get trays, paper, chemicals, contact printing frame, clips, thermometer . . . plus a Kodacraft Roll-Film Tank. $8.50.

◀ **KODACRAFT PRINTING KIT.** Here is just the starter for your son or daughter—a complete outfit for printing his or her own pictures economically. Trays, graduate, thermometer, chemicals, paper, printing frame . . . all for the very low price of $4.85 complete.



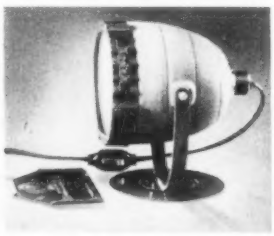
With the **Kodak Electric Time Control** you can control printing time automatically from 1 to 57 seconds. You merely plug your printer or enlarger into the control. It turns it off automatically after a pre-set interval. $13.50.

For convenient film processing, use the new **Kodacraft Roll Film Tank**—only $2.95. Comes with aprons for 620, 120, 616, 116, and 127 films. For 35mm, the **Kodak Day-Load Tank** lets you load and process . . . all in a lighted room. Just $9.85.

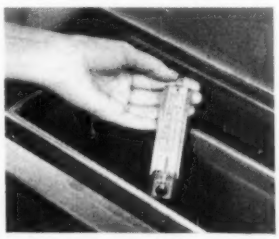
While you're printing or enlarging, the **Kodak Utility Footswitch** will leave your hands free to handle equipment and materials. A safe neon light shines through slots . . . marks location. $10. Great to use while dodging prints.

For drying prints quickly, without curling, use the **Kodak Blotter Roll.** Has a fine white blotter, a linen-lined blotter, and corrugated board backing. Air can circulate freely for rapid drying. Takes 60 prints of average size. $2.75.

Save paper and time with the **Kodak Projection Print Scale.** Make one exposure through the scale. Read correct exposure directly from the resulting print when developed. $1.34.



A "must" is the **Kodak Adjustable Safelight Lamp.** Has double-swiveled shank and bracket. Easily attaches to wall, shelf, or bench. $8.25. Brownie Darkroom Lamp, Model B (not pictured), only $1.15.



For better negatives, more uniform prints . . . be certain that all your processing temperatures are accurate. Dependable **Kodak Thermometers** will give you the accuracy you need . . . at 45 cents and up.

While you're in the darkroom, keep your clothes protected with the **Kodak Darkroom Apron.** Made of supple black plastic. Pocket and drip cuff at bottom. Medium $2.25; Large $3.00.

The Kodak BULLETIN

Kodak Announces Two New Papers

TO GIVE YOU NEW SPEED, WARMTH, FLEXIBILITY IN PRINT MAKING

KODAK MEDALIST PAPER. This new Kodak projection paper brings you an entirely new combination of desirable features. It has just the right degree of warmth to enhance the best qualities of the majority of your pictures. It has just the right speed to make its handling in the darkroom easy and pleasurable . . . and the speed of all four contrast grades is essentially the same.

The big news, though, is in the outstanding flexibility of this new paper. By varying the ratio of exposure and development, contrasts can be sharply changed in the finished print without any degradation of the quality or tone. Long exposure and short development result in a soft print. Short exposure and prolonged development increase contrast in the print. This factor—with the four grades of contrast in which Kodak Medalist Paper will be available—means that you will now be able to obtain easily a completely graduated range of contrasts to match the requirements of any negative.

Kodak Medalist Paper tones beautifully. Use Kodak Brown Toner, Kodak Sepia Toner, Kodak Blue Toner, hypo-alum, or Kodak Toner T-7a.

Kodak Medalist Paper is available in four degrees of contrast and three surfaces: F—White, Smooth, Glossy—Single Weight; G—Cream-White, Fine-Grained, Lustre—Double Weight; J—White, Smooth, High-Lustre—Double Weight.

KODAK EKTALURE PAPER G. Here is an outstanding new paper for projection prints which combines warmth with speed. Approximately 2 times as fast as Kodak Opal Paper, it is easy and convenient to handle in the darkroom while providing prints that will be outstanding . . . in a salon . . . or in your own collection. Inherent resistance to blocking in the shadow areas gives your prints outstanding depth and clarity.

Ektalure tones well in Kodak Selenium Toner to yield a rich, reddish brown color. When a golden brown color is preferred, the recommended toner is Kodak Gold Toner T-21. Kodak Ektalure Paper is available in one surface only: G—Cream-White, Fine-Grained, Lustre—and normal contrast only.

Ask to see sample prints at your Kodak dealer's.

Make Your Own Christmas Greeting Cards with the Kodak Photo-Greeting Negatives

Utilize your own family pictures or favorite scenes to make truly personal greetings. Negatives include appropriate designs and lettering with opening for your negative. Choose from a wide variety of designs, sizes, and types . . . for use with 620, 620 reflex, 127, 616, and miniature-camera negatives. Ask your Kodak dealer to show you the complete assortment, and the new 25-cent Kodak booklet, "Photographic Greeting Cards." If you're too busy to print your own cards, he'll take care of the printing for you.

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Rochester 4, N. Y.

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Brilliant Performance . . . Brilliant Results

Cine-Kodak Royal Magazine Camera (16mm.)

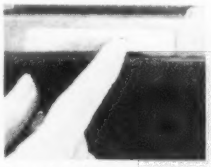
With a Cine-Kodak Royal in your hands, you find yourself shooting with the confidence that superb equipment always gives you. That quality is immediately apparent in the "feel" of the camera, in the purring of its powerful, long-running motor, in its ready adaptability to all of your movie-making needs. The "Royal" weighs less than 3 pounds, yet it is built with the precise mechanism and superb optics that stamp it a truly outstanding movie camera.

With fine, focusing Kodak Cine Ektar 25mm. *f*/1.9 Lens, $181. With prefocused Kodak Cine Ektanon 25mm. *f*/2.8 Lens, $166.50. See both models . . . make your selection . . . at your Kodak dealer's.

Loads in 3 seconds—open cover, drop in a magazine of film, close cover . . . shoot. And you can switch magazines—any time.

Film at 16, 24, or 64 frames, or single frames. The powerful, long-running motor cuts off automatically when rewinding is needed.

The "Royal's" magnificent Ektar Lens has a true exposure range from *f*/1.9 to *f*/22, focuses from infinity way down to 12 inches.



An enclosed, variable power finder shows the fields of 11 wide-angle and telephoto lenses . . . incorporates close-up parallax indicators.

"Half-forward" on the exposure lever gives average runs; at "full-forward," it locks for long runs; for single frames, flick it rearwards.

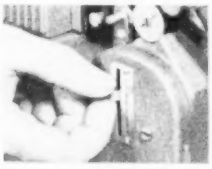
Kodascope Pageant Sound Projector (16mm.)

Good movies become better movies when shown by the Kodascope Pageant Sound Projector. Though it's remarkably simple to use, its visual and tonal results are superb. You get rock-steady screen images, sharp and bright from edge to edge; quiet operation; tones as clear and pleasant to the ear as any you've ever heard. And perhaps just as important, you get truly long-term service, too. The "Pageant"—with its lifetime lubrication—is the easiest to maintain of all sound projectors.

For personal silent movies, professionally produced sound films . . . shows in home, club, or auditorium—here is the all-purpose projector! And the price—complete—only $400.

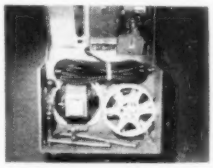
Threading is easy along a clearly marked film path, and finger-tip pressure on the speed lever adjusts for sound or silent operation.

The fast *f*/1.6 lens and powerful lamp provide sharp, brilliant screen images. And accessories let you tailor shows to any requirements.



The Fidelity Control precisely focuses scanning beam on sound track. With scanning point stability, it assures top sound reproduction.

A whisper or a shout—sound volume is under ready rein. And through a phonograph-microphone receptacle you can add music or narration.



Big-projector quality . . . "midget-projector" convenience! The outfit—complete in its own carrying case—weighs under 33 pounds.

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Kodak
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Adventures in Color

(Continued from page 61)

is essentially the same as the symbolist's method in painting.

"Color Rhythm" is the photographic equivalent of non-objective art—that is, painting without reference to any recognizable subject matter. It is particularly suited to the creation of a mood. Conrow says this photograph was made with the idea of "presenting a composition in color of rhythm and line for visual enjoyment. This is similar to a musical composition for auditory enjoyment."

Conrow takes issue with those who insist color is inflexible. "Light itself," he points out, "is the most flexible element in photography. And when light is broken down into its component colors, its possibilities for creative expression are limitless."

All photographers are familiar with such terms as warm or cool colors, soft or harsh tones. This universal language of color and tone takes on new importance in work like Conrow's. Most of his pictures are made with "captured light"—light reflected in a highly polished flexible surface like that of a ferrotype tin. Many are carefully planned multiple exposures.

"Time and Face" was made by placing all the objects—mask, watch faces, pearls, dice—on black velvet, and photographing them from above through a piece of fluted glass. Two 300-watt, 3200 Kelvin spots lighted the setup from opposite ends. Focus was deliberately concentrated on the mask to keep the watches from being sharp and distracting.

The procedure employed for "Color Rhythm" was somewhat more complicated. Conrow shot from beneath a sheet of glass on which he had placed three unmounted lenses. The spiral pattern was made by a pen-light suspended over the layout and swung in circles. The lines running across the pattern were made by sweeping the light straight through the camera's field of vision. A separate exposure was made for each of these lines. This time, the lenses were thrown completely out of focus to destroy their identity. Both pictures were made with Conrow's 4x5 Crown view camera which has an 8-inch Kodak Anastigmat f/4.5 lens.

These are but two of the products of one man's originality and skill; Conrow himself has made more than 70 such abstractions. The field is wide open, and the satisfaction of really creative photography like this is reward enough for the effort—to say nothing of the satisfaction of a job well done.—▶

MISSING READERS

Two readers whose pictures were published in the October issue moved since submitting their contributions and left no forwarding addresses. If Selden Pinero, formerly of Woodside, N. Y., and C. B. Woolston of Los Angeles will communicate with the Editor, their checks for the pictures will be mailed promptly.—▶

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4x5 contact paper, per gross .95
Four gross assorted grades 3.50
(shipping wt. 2 lbs. per gross.)

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7"x125' Kodak Bromide, same as above. In grades #1, 2, 3 — specify choice. ea. 1.89
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35mmx100' Ansco Supreme bulk film, ... ea. 1.20
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This film in original Eastman Kodak packing NOT respooled nor repacked. Outdated, guaranteed good. Cost of processing by Eastman Kodak laboratories included.

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3 for 9.50

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Fashion's Man of the Hour

(Continued from page 42)

The precise nature of his directorial skill, however, you are not likely to learn from Greene, who, (and who can blame him!) likes to be alone with his models. He is in fact so charming a diplomat that few clients can resist the ban on spectators. Those who do, usually live to regret it because such kibitzing in the studio or on location is not conducive to pictures bearing the best brand of the Greene magic. He usually manages to banish even the most important clients. When Vivian Blaine came to his studio last June to be photographed for *Life*, the "Guys and Dolls" star dragged along her husband, the producer and the director of the show, and six of the magazine's editors and researchers.

If Greene was dismayed by this mob he did not show it. He went to work unruffled as always and for half an hour prepared his studio and made some leisurely exposures—probably without film. Finally, in his most charming manner, he surmised that everyone needed a cup of coffee and suggested that they go and get it. Which they did in a body, with the result that Greene's picture of Vivian Blaine, in competition with half a dozen other photographers, made the June 11th, 1951 cover (see pg. 41).

Those who have penetrated the private Greene curtain have reported jolly goings on. The big secret, and one that is more important than any other a photographer can have, is that Greene really knows how to relax his models and put them in a happy, joyous mood in which they cavort and gambol like slender fillies in a meadow. In the studio, which is wired for sound, he plays records, but mainly, or so say those who have been present, he knows how to make girls really happy at their work. "He's awful nice," said one model. Another stressed the fact that he is more solicitous than most photographers. "He makes you feel that you are important," said another.

Milton Greene's charm also weaves a spell over the people he works for. In spite of his unvarying ban on spectators, the *Life* editors like him. They find him easy to get along with, reliable and a fast, sure worker. The Christmas issue last year, for instance, carried three pages of imaginative *Alice in Wonderland* pictures and two pages of gay color shots of children in a dreamland of modern toys. He was given the *Alice in Wonderland* assignment on a Thursday, got the props all set up late Thursday night, shot the pictures Friday and delivered them on Monday. Editors just naturally warm up to photographers like that. Ray Mackland gave Greene his first *Life* fashion assignment and has never regretted it. Nor has Milton, who cherishes the freedom given him to do things pretty much his own way on assignments. He likes to work, as he puts it, in a purely personal way, which means that he likes to explore and exploit his material as thoroughly as possible. *Life* gives him that opportunity. Too many advertising accounts do not. He spent eight days in the Virgin Islands on that *Life* assignment, and the results were worth whatever it cost.

All this charm is wrapped up in a rather smallish package. Greene is short, looks a little like comedian Jerry Lewis and is somewhat as unpredictable. He is serious about his work, confident in his own ability and not easily to be talked out of his convictions, which are outspoken and strong. When the editors were trying to decide between six pictures, one of them Greene's, for a June cover, he happened in, looked them all over carefully and blandly told the editors his was the best. He meant it in all honesty, and only a guy with Greene's elfin charm could get away with it. The editors agreed. It was the Vivian Blaine picture and it went on the cover that week.

If all this makes Milton Greene sound like a young man on the way up, he has actually been in the business or on the edge of it for a dozen years. His work has appeared on the covers and inside such down-to-earth magazines as *Collier's*, *McCall's* (15 covers) and *Good Housekeeping*. He has had a lot of pictures in *Vogue*, too. As a commercial photographer he has had, and still has, a long string of major accounts, such as Ford Motors, International Playtex, Yardley's, Mallinson Silk, Woodbury soap, and others.

All this experience is surprising, for Greene, at 29, still looks like a coltish youngster. There is that about him which suggests that he has only recently found himself and really is at the threshold of a new career. Solid success came to him in the well-known Bauman-Greene partnership, which was dissolved a few years ago. Since then he has gone it alone. His long experience, the early years of struggle, have given him a solid background of accomplishment. Where for a long time he lacked a true sense of direction, he now knows clearly where he is going.

Greene does not like to be called a fashion photographer, prefers to think of himself as a versatile worker whose approach is governed primarily by the way he feels about the subject with which he is confronted at the moment. He avoids stereotypes like the plague. When dealing with fashion as with anything else he insists that he is a realist, which some people regard as nonsense. But there is point to the fact that Greene's fashion models come provocatively alive in his pictures because Greene comes closer to catching their flesh-and-blood reality than most other fashion photographers. What Greene neglects to point out about himself is his conspicuous good taste which is the distinguishing quality he adds to the "realism."

Although some of it might rub off by close contact with the pictures, you can't acquire Milton Greene's good taste intact. But you can learn something from his general approach. You *can* appreciate the importance of direction versus posing of people. Greene directs his girls, gets them to do the delightful things he finally gets on his negatives. He goes even further. He casts each job by picking the girl who is most likely to behave in the way the theme suggests. Greene then

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concentrates on getting the girl in the mood. He does everything possible to relax her, to get her to forget her normal inhibitions. He gives her the kind of freedom he himself as a photographer demands, then goads her into her own spontaneous behavior. Out of this comes natural action that leads to fresh, sometimes exciting, pictures. The photographer who *poses* his model in accordance with some preconceived plan automatically shuts off the fountain of true spontaneity.

Milton Greene began his photographic life with a box camera at the age of fourteen. Shortly after that he advanced to a 35-mm Argus, which his brother bought and he borrowed permanently. He was soon to usurp the family bathroom for a darkroom. Once inoculated there was no stopping young Milton, who at sixteen took a job running errands, sweeping floors and generally assisting at the studio of August & Co., which was staffed by Maurice Bauman, Eliot Elisofon (now one of *Life's* stars), and Al Wiener. This was the beginning of a restless period that saw the young man moving hither and yon grasping at studio straws. Elisofon left August & Co. to start on his own and Milton went with him as an assistant. But that alliance didn't last long either, the youngster deciding to open his own studio. He took that flyer when he was 18. It lasted six months, flopping with a barely audible thud, after which he went off to California to forget and to look around. He got inside Hollywood by taking a job as a day laborer at Universal Studios.

Back from Hollywood in 1941 Greene made a living doing photographs of models for magazine illustrators for a while, and got a job as darkroom assistant with Louise Dahl-Wolfe, where he probably got a good whiff of fashion photography through the hypo fumes. That lasted for a short time and the youngster, now 22, again went west, this time with the avowed intention of becoming a motion picture photographer and director. Apparently he didn't reckon with the unions, got discouraged in a couple of months and returned to work as a full-fledged photographer with the Paul D'Ome studios.

Milton left the Paul D'Ome studios and entered the well-known partnership of Bauman-Greene, which lasted for five years. This pair established the Macy department store illustration studio, which they operated on a split time basis. They quit Macy's finally and opened two studios at 480 Lexington Avenue, which after some rough early going became a success. Greene, apparently established, blossomed as an original thinker with a camera during this period. He did everything—commercial and magazine illustration, covers, fashions, food. A disagreement split the Bauman-Greene partnership at the end of five years. Greene kept the 11th floor studio and a few lights, Bauman the fifth.

Today the young man who started with a box camera is on his own again, a young man on the way up, fashion's man of the hour who, at last, is beginning to taste the first real fruits of photographic fame.—

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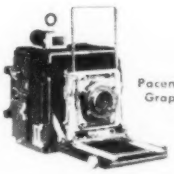
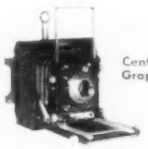
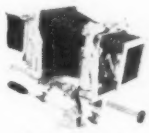

Pacemaker Graphics

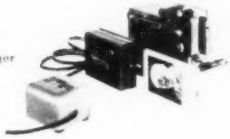

Century Graphic

Super D Graflex


Graphic View II

Grafmatic Film Holder

Graflite Flash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Flash

(*Continued from page* 67)

lighting, and flash fill-in from the camera position.

Correct exposure for flash is comparatively easy to determine. In fact, manufacturers of flashbulbs have predetermined such exposures for you by making tests that take into consideration all available brands of film and all sizes of lamps. They have set up handy tables that enable you to determine quickly the *f* stop to use with any shutter speed, lamp, and type of film you may select. You can refer to the chart below for a description of the simple method that insures good pictures with flash.

One important thing to remember is that flashbulbs are classified according to their firing characteristics, and you must therefore know what type of lamp is best suited to your particular equipment. A flashbulb must reach its peak at the moment when the leaves of the shutter are wide open and is designed to do so. Your dealer will tell you which types and sizes to use with your camera. There are

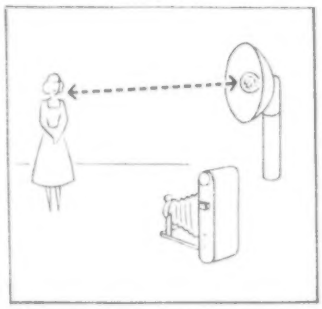
(*Continued on page* 108)

HOW TO DETERMINE CORRECT EXPOSURE FOR FLASH

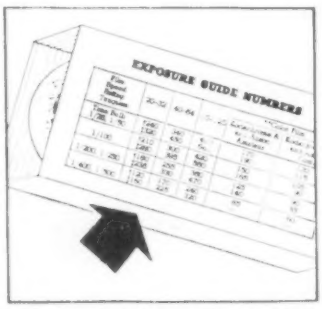
It is a very simple matter to find the correct exposure for taking a picture with flash. You don't even need an exposure meter. Here's how:

What you need to know	and where to find it
A *Speed of your film (ASA rating).*	**A** *In circular packed with the film.*
B *Shutter speed you intend to use if not shooting open-flash.*	**B** *Determined by subject and amount of action—usually 1/100 or 1/200 sec.*
C *Guide number or flash factor of flashbulb you are using.*	**C** *On carton in which lamp is packed, or in manufacturer's literature.*
D *Distance of flashbulb to subject (not camera-to-subject unless lamp is at camera position).*	**D** *By rangefinder, focusing scale, estimate, or direct measurement with tape.*
E *Correct f stop to use to insure right exposure with the other factors (film, shutter, lamp).*	**E** *Divide guide number (c) by distance of lamp to subject (d) and your answer is the f number to use.*

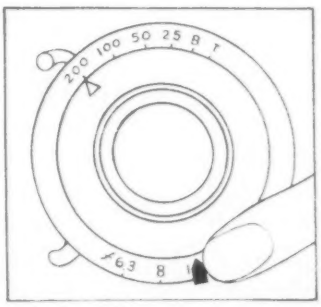
There you have it . . . . . as simple as A - B - C



A DISTANCE from lamp to subject, in feet, is divided into . . .



B GUIDE NUMBER of the flashbulb you are using, to determine . . .



C F/NUMBER that gives correct exposure with film and lamp used.

FOR EXAMPLE: *Suppose you are using a film with a speed rating of ASA 64 (Tungsten), and plan to shoot synchronized flash at a shutter speed of 1/100 second. You note on the lamp carton that the guide number for your flashbulb under those conditions is, let us say, 160. Thus if the lamp-to-subject distance is 10 feet, you simply divide 160 by 10 to get 16—or f/16. If the lamp-to-subject distance is 5 feet, then 160 divided by 5 gives you 32—or f/32. That's really all there is to it!*

OPEN FLASH is a technique that can be used with *any* camera on a tripod or solid support and requires no synchronizer or any sort of built-in devices. The shutter is simply set at Time or Bulb, then after finding guide number (which is same as for 1/25 and 1/50 second) the f/number is determined as explained above. Now it's just a matter of opening the shutter, firing the lamp, and closing the shutter again.

MULTIPLE FLASH, using two or more flashbulbs, presents no difficulties, as the exposure is calculated for the *main* light—the one which covers the picture area that is to receive normal tonal scale. As to the other lights, remember that a light source of the same intensity as the main light but *nearer* to the subject will be relatively brighter, while one *farther* from the subject will be relatively darker or more subdued. Covering a lamp with a handkerchief is another way to subdue it. A little experimenting with multiple flash will teach you how to make the most of this important picture-taking technique.

HELPFUL TIPS that will insure success in flash photography: keep equipment in good working order. Be sure synchronizer is in proper adjustment; avoid faulty plugs and wires, and guard against poor contacts. Be sure batteries are fresh, that lamps fit firmly into the socket before firing. Use a reflector that is designed for the lamp you prefer so as to insure maximum light. By exercising a little care you will save yourself from disappointment due to the loss of important pictures through mechanical failure, and at the same time enjoy the thrill of exciting, sparkling flash photography.

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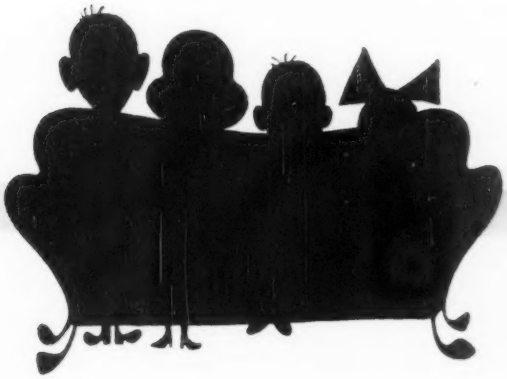

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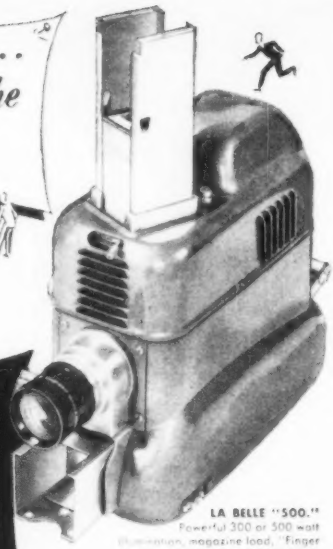

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Flash

(*Continued from page 106*)

four general classes of lamps available. Class F, the fast-peak lamps, reach their peak in approximately 5 milliseconds or 5/1000 second. They cannot be used with a solenoid, but are ideal for many cameras with built-in flashing contacts and for open flash. Duration of the flash is equal to about a 1/200-second shutter speed. Class M, the medium-peak lamps, reach their peak in about 20 milliseconds after closing of the flash circuit. They are most readily synchronized by solenoids and also work efficiently with synchro-shutters. Class S are the slow-peak lamps and reach their peak in approximately 30 milliseconds. They are designed for great light intensity and can be used with open flash and for synchronized shots at not over 1/25 second. Class FP are broad-peak lamps for use with focal-plane shutters, and they provide full light on the subject during the entire time the shutter is traveling. Pamphlets prepared by the manufacturers give full information on these lamps and tell all their characteristics. Incidentally, when you see "X" delay on a synchro-shutter, it means that the lamp circuit is closed the instant the leaves are fully opened. The setting is intended for use with no-delay electronic flash, which reaches its peak a few *microseconds* after the circuit is closed.

To beginners in the use of flash, the best advice I can give is to urge you to study the effect of visible light sources until the relationship and balance of lights, to one another and to the subject, become evident and impressed on your mind through the experience of seeing. Start with more simple setups that can be visualized beforehand more easily. This mental pattern can then become the reference used when placing flashlamps—which of course give no light until the moment of exposure. When you know which way a light will fall before it is even lighted, you will have mastered lighting with flash!—

KEEP THAT FILM GATE CLEAN

Not long ago, a young friend invited me to a showing of his home movies. He had some really good pictures, but, with the exception of the first few rolls he had taken, they all showed distinct, cobwebby lines around the edges. The cobwebs grew worse as the evening progressed. The last few rolls were practically ruined. My friend made repeated attempts to clean the lens and film gate of the projector as he went along, but to no avail.

When I asked him about his camera, he told me that he always kept the lens clean, but hadn't thought of cleaning the film gate. I cleaned the gate for him, and the cobwebs disappeared from his subsequent pictures, but nothing could be done about the ones he had already ruined.

This is a good point to remember: keep that film gate clean! Usually a good blowing-out every time you change a roll is sufficient, but wipe it out occasionally with a soft, lintless cloth.—*Glenn W. Spencer, Wichita, Kansas.*

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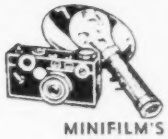

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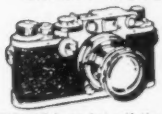

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with F1.9 T ctd. Primoplan lens $240.00

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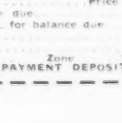

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RUS ARNOLD calls tripod a "MUST" on location

Wherever a picture assignment takes nationally famous Rus Arnold, he is sure to take at least one of his QUICK-SET tripods. Known for his picture stories of big-time industries, this professional uses a QUICK-SET tripod to save time, avoid shots spoiled by camera movement. And the lightweight, sturdy construction of QUICK-SET makes it a "natural" for easy packing and portability.

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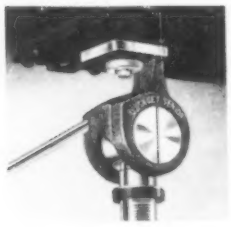

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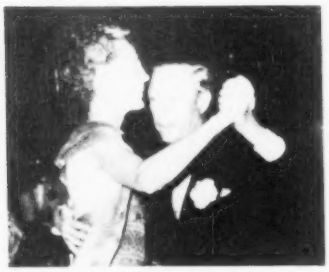
the magazines

By the Publications Committee, American Society of Magazine Photographers

Anent the Alan Gould-FBI item in the September column: Fred C. Clarke, Jr., writes: ". . . the article on Alan Gould being fingerprinted sounds fishy. No two sets of fingerprints are alike, and if the FBI had, as the article stated, a set of the suspect's, matters could easily have been cleared . . . the end of a finger might match the prints of another individual, but if the full fingerprint had been taken the difference would have been caught."



Toni Frissell, outstanding photographer of women's fashions, makes a charming dance partner for the Duke of Windsor. Both were guests at a party given at The Greenbrier in White Sulphur Springs.

Well, Mr. Clarke, you've got us dead to rights on a technicality. We did say "thumb *prints*"—although we meant to say "thumb."

* * *

Warren Trabant off to Paris as picture head of the ECA magazine unit. He replaces Norton Wood, who goes to the Washington office. . . . Fenno Jacobs will soon return to the States after a long stint in Europe. . . . Dave Forbert back in Europe for *Reader's Digest*. . . . Cary Perutz, photographing a whale in Norway, broke a toe when the whale flipped its tail at Carl.

* * *

Peter Gowland, well-known Los Angeles photographer of beach pretties is slightly bitter about a recent tangle with the local police. Seems that Gowland's photographic activities draw a goodly crowd—especially policemen. Making up time on a recent trip, Pete was stopped by a patrolman who recognized him. Gowland thanked his lucky stars and launched into a lively conversation on photography. He did, that is, until the officer handed him a ticket for speeding.

* * *

Ellen Conried, who was at Hospital for Joint Disease, wasn't able to forget photography even though she was strapped down for a series of tests. Turned out that the resident doctor was an amateur photographer who promptly brought in his portfolio to show Ellen. (We haven't yet learned whether she fulfilled her commission to take pictures of the ward after she was up and about).—

DESERET NEWS

THE MOUNTAIN WEST'S FIRST NEWSPAPER

SALT LAKE CITY, UTAH

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With only four days of August gone, most areas already reported they had received more moisture for the month than the entire August normal precipit

Assembled in a special regional meeting in the Joseph Smith Memorial Building on the Brigham Young University campus in Provo, welfare work-

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AT WORK J. M. HESLOP SHOOTS THIS

AT HOME HE SHOOTS THIS

As Chief Photographer of the Salt Lake City *Deseret News*, J. M. Heslop's assignments range from operating rooms to blizzards, from fires to beauteous women. Experience and skill produce dramatic photographs.

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Leica IIIC, f 3.5 Elmar	259.00	159.00
Leica IIC, body only	70.00	
35mm Summaron f 3.5 std.	123.20	95.00
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50mm Summitar f 2	189.00	
50mm Summarit f 1.5	280.00	
85mm Nikkor f 2	175.50	
85mm Summarex f 1.5	472.50	395.00
90mm Elmar f 4 chrome	133.00	95.00
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PRESS CAMERA DEPT.	New	L. New
2¼x3¼ Century Graphic	109.00	69.00
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w above — 90mm wide a. Angulon	450.05
w both above — 24cm Tele Xenar	575.50
5x7 Super Technika, RF, no lens	449.75
65mm f 6.8 W.A. Angulon in Comp. Synch., 2¼x3¼	54.25
9cm ditto for 4x5	58.15
135mm Xenar f 4.7 std. Fl.	52.75

	Barrel	Compur
240mm Tele Xenar f 5.5	82.43	107.25
300mm Tele Xenar f 5.5	112.53	149.22
360mm Tele Xenar f 5.5	138.78	183.55

Other lenses available, cpld. by our technician

ZEISS CAMERA DEPT.	New	L. New
CONTAX IIA T std. f 2 Sonnar	385.00	279.00
SUPER IKONTA B, f 2.8 std. Tessar, Synchro	234.00	159.00
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35mm Biogon, for 11, f 2.8		119.00
85mm f 2 Sonnar	289.00	149.00
135mm f 4 Sonnar	198.00	109.00

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KINE EXAKTA VI, w auto. Diaphragm, f 3.5 Tessar. Just arrived! New shipment!	227.50
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EXAKTA V, f 2 Schneider Xenar	227.50
EXAKTA V, f 2 Zeiss Biotar	313.75
EXAKTA V, f 1.9 Meyer Primoplan	250.00
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90mm f 1.8 Angenieux	149.00
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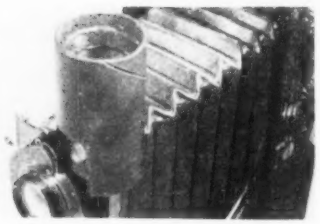
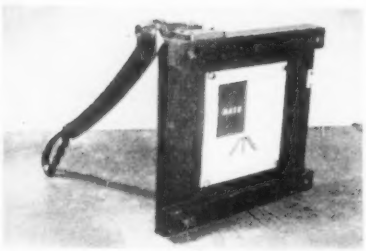
photo tips

VIEWFINDER MAGNIFIER



A small magnifier held over the indirect reflex finder of many folding cameras will make viewing and composing much easier. The lens is held in place between two cardboard collars cemented inside a cardboard tube. The tube should be long enough to provide about an inch of sunshade for the magnifier lens. A notch is cut into the lower end of the tube so that it will fit snugly on the viewer.—*George Carlson, Chicago, Ill.*

EMERGENCY COPYING EASEL

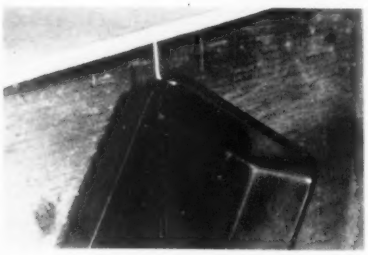


A trimming board makes an excellent and convenient emergency copying easel when placed on end, as shown at left. Normal tension of the cutting blade spring will permit the blade to hold the board rigidly upright. If there is not enough tension, tighten the spring bolt slightly. The material you will be copying can be fastened to the board with thumbtacks, or may be placed under a sheet of glass taped to the board, which will offer very positive retention.—*John J. Rea, Urbana, Ill.*

DIFFUSION SCREEN HOLDER

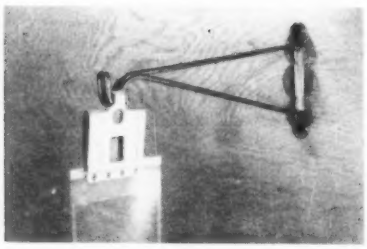
A simple but efficient device for mounting a diffusion screen on a floodlamp reflector is made easily with a spring-type paper clip and a wire coat hanger. Remove the hook section from the hanger and bend the wire straight, so that it extends beyond the reflector rim on either side. Fasten the wire to the paper clip with a ¼-inch machine screw and washer. You then can clip the holder to any reflector, and either hang diffusers or clip them to it.—*T. T. McDougall, Billings, Mont.*

HANGING PHOTO TRAYS



Drying of photo trays can be accomplished more quickly when the trays are exposed to open air. This is sometimes difficult, as you may not have enough flat surfaces on which to place all the trays you have used. To help in this, drill a small hole in the rim of each of your trays, at the corner. At several places along the bottom of a shelf in your darkroom, preferably over a sink, insert hooks of the type used to support curtain rods. Then merely hang the trays on the hooks.—*Brian Lee, Lima, Ohio.*

FILM HANGING BRACKET



A metal bracket of the type used for suspending flower pots and other wall ornaments makes a convenient support for drying film. Fastened to the wall of your darkroom with wood screws or nails, the bracket may be swung out of the way when not in use. Rolls of film held in clips can be hung on these brackets, and the brackets offer solid support when wiping the film to remove sediment and surface water after hanging.—*Duncan Abbott, Monterey, Calif.*

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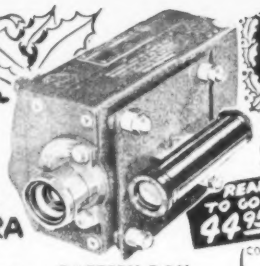

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EXPOSURE by W. F. Berg. Published by Focal Press, London. Distributed in the United States by Pitman Publishing Corp., New York City. Cloth bound, 5x7⅜, illustrated, 432 pages, $6.00.

Here is a practical and readable exposure handbook by one of the leading research workers in the field. Rarely do you find a technician of Dr. Berg's stature who also has the ability to reduce his abstruse knowledge to an understandable level. In *Exposure*, Berg has done that very nicely. He presents technical data in an easy-to-understand manner through vivid pictographs and simple explanation that do much to clear away the mumbo-jumbo from sensitometry and related topics. Within his book you'll find the answers to questions about photographic materials, film speed, light and color, filters, exposure meters, photography by artificial light, and many other subjects, all treated with thoroughgoing detail. If you want to know more about what happens when light strikes the film in your camera, this is a good place to look.

EDITING AND TITLING by John Croydon. Published by The Fountain Press, London. Distributed in the United States by Rayelle Foreign Trade Service, Philadelphia. Paper bound, 4¾x7¼, illustrated, 288 pages, $0.50.

Booklet number 6 in the "Cinefacts" series, "Editing and Titling" gives a step-by-step procedure for cutting and editing amateur movie film, and includes suggestions on making effective titles.

FILMING INDOORS by Denys Davis. Published by The Fountain Press, London. Distributed in the United States by Rayelle Foreign Trade Service, Philadelphia. Paper bound, 4¾x7¼, illustrated, 240 pages, $0.50.

This is another volume in the pocket-size "Cinefacts" series. It discusses methods of lighting indoor sets and describes camera techniques that add action and interest to home movies of indoor subjects.

PHOTOBIOGRAPHY by Cecil Beaton. Published by Doubleday & Company, Inc., New York City. Cloth bound, 7x10¼, illustrated, 255 pages, $6.

As a recorder of fashion, royalty, and the theater, no photographer has achieved a higher reputation that Cecil Beaton. During the past 25 years the fashionably famous and the famously fashionable have posed before his camera and left a photographic record that reads like a Who's Who of high society. In "Photobiography" Beaton recounts his dazzling career from the days when he first struggled with the complexities of a box Brownie to his present eminence as photographer for Britain's royal family. The text, well-spiced with personal anecdotes, gives intimate and amusing glimpses of his subjects as human beings, and discusses some of the technical and personality problems faced by portrait photographers. Supplementing Beaton's words are more than 100 pictures, sometimes superficial, usually beautiful: a panoramic view of a dream-world which Beaton himself in no small measure helped to create.

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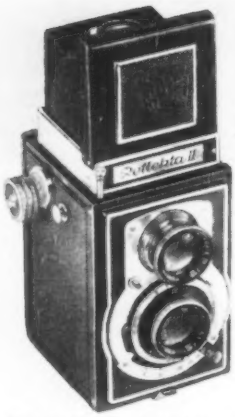

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EUROPA-CAMERA, published by Europa Camera Verlag, Germany. Distributed in the United States by Rayelle Publications, Philadelphia. Cloth bound, 9x12, profusely illustrated, 206 pages, $6.50.

Europa-Camera presents the work of a hundred photographers from 18 European countries in an exciting display of pictures—some outstanding, a few bad, but most of them well worth seeing as examples of post-World War II European photography. The aim of this new manual is two-fold: to record the richness and variety of Europe today as only the camera can capture it; and to show the development of photography as a new art of seeing. In line with this purpose, the illustrations are divided between two sections: *Europe in Pictures*, which gives a kaleidoscopic survey of the land and the people from Spain to Finland; and *Pictures in Europe*, which emphasizes technique in divisions such as *Experimenting with Light and Form, Man and Nature through the Seasons, Still-life*, and *Photographic Tricks*.

The *Europe in Pictures* section falls somewhat short as an honest documentary. Because it emphasizes scenic and pictorial subjects, you get the impression that Europe is a happy, peaceful land where the scars of two world wars never show and the tensions of our times somehow have been whisked away. Nevertheless, these pictures on the whole are far superior to the average travel shot and frequently achieve a vividness and intimacy that bring you close to the subjects portrayed with a very startling realism.

One of the book's highlights is a selection from the works of three European masters—Regi Relang, Rolf Winquist, and Ernst Haas. Particularly noteworthy is Haas' contribution, *Miracle in Tinos*—an emotion-packed photographic essay on pilgrims to a Greek island where a lame girl recovered the use of her limbs and reported a visitation from the Virgin Mary. In a lighter vein are Relang's glamor portraits which show that pin-up photography can be handled with sophistication and good taste.

Unfortunately, text, technical data, and captions are in German only. The pictures speak for themselves, of course, but the book's appeal to an international audience might be greater if the publishers had included French and English versions of text. Despite this drawback, *Europa-Camera* is a significant and fascinating picture book you'll not want to miss seeing.

SOUND SLIDEFILM GUIDE—5th Edition. Prepared by the editors of *Business Screen* for the audio-visual division of the Operadio Manufacturing Company, St. Charles, Ill. Paper bound, 6 x 9, 64 pages, $1.

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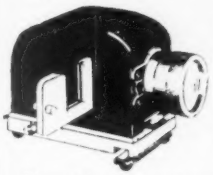

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THE CAMERA

and how to use it

(*Continued from page* 54)

camera firmly with both hands, keep your elbows in, and stand with feet apart to give you a good base. At times you can get added support by leaning or bracing yourself against a tree, pole, or building. The "do-or-die" moment is the split-second when you trip your shutter. Some photographers even hold their breath at this time to prevent camera motion. Learn to shoot your camera as you would shoot a rifle—don't pull or push on the shutter release button, but *squeeze* it until it releases the shutter without jarring the camera.

With practice, you can learn to make sharp pictures at 1/25 second with the camera held in the hand. Some experts, Jerry Cooke, for instance, can make hand-held shots with shutter speeds as slow as 1/10 second, but this calls for exceptional control. You'll be safer to use 1/100 whenever possible. If you must use speeds of less than 1/25 second, put your camera on a tripod. This may sound like heresy to those who regard the 35-mm camera as a hand-held instrument exclusively, but the fact remains that a tripod is the only practical solution for some kinds of pictures. For time exposures, long-exposure filter shots, and photographs where extreme detail is desired, a tripod or other solid support is almost a must.

Many miniature cameras come equipped with flash synchronization and can be used to make flash pictures just as with larger cameras. (For a thorough discussion of flash technique see *Flash Photography For Everyone*, page 64 of this issue). An interesting technique is the so-called "bounce-light" method of using artificial illumination to simulate natural light. To accomplish bounce-lighting point the reflector of your flashgun or floodlamp at the ceiling or wall, instead of directly at your subject. The resulting reflected illumination is soft, pleasing, and natural looking.

If you own a camera with an *f*/4.5 or faster lens you may want to experiment with photography indoors or at night by existing light. Practice on easy subjects like people sitting beside open windows, or in lamplight, until you have mastered taking pictures at slow shutter speeds. Then tackle more difficult subjects like interiors of nightclubs, streets on rainy evenings, the inside of railroad stations, and similar locations. Shoot with your lens wide open and with the slowest shutter speed you can handle. With a fast lens and a maximum speed developer there's almost no limit to which you can push your film. But mastery of "impossible" lighting conditions calls for a lot of experimentation and plenty of failures before you succeed.

Photographic technique with a 35-mm camera is much more than how you hold your camera. It's a way of looking at life, of recognizing pictures as they unexpectedly appear, then reacting swiftly to that vision. Says Ed Feingersh, a contemporary expert, "The picture is more, much more, than the technique. Simplify your technique—one film, one developer. Use the shutter speed that will stop the action; the developer that will get the negative." Another expert, Dan Weiner, speaks in the same vein: "The flexibility of being able to select any one of thousands of possible shots within a space of a few minutes makes it the right camera for me. . . . I've simplified everything to bare essentials—one camera, one film, one developer. Technique must be resolved to the minimum so that time-lag between first impression and the recording of it is almost gone."

COLOR SLIDES

(*Continued from page* 58)

who want to be safe just don't shoot unless the sun is shining full and bright. For light subjects (light complexions, white clothing, flowers, snow and beach scenes), use one-half lens opening smaller than recommended, or 1/50 second *f*/8. For dark subjects, use one-half lens opening wider, or 1/50 second at *f*/5. These exposures are based on front lighting (sun behind the camera and shining directly on subject); for good shadow detail when the subject is lighted from the side, use about one lens opening wider; for back-lighted subjects, use two openings wider.

To be sure of getting the exact nuance of color desired, many amateurs do what professionals have practiced ever since color was first introduced. They bracket the exposure—shooting at the indicated exposure and then making two more exposures, one with the lens aperture half a stop wider and the other, half a stop smaller than the opening called for.

Shooting 35-mm color by artificial light is a little more complicated, but should present no difficulty. Tungsten-type (Kodachrome, Type A) is balanced for use with photoflood lamps. Exposures can be determined by meter or by measuring lamp-to-subject distance and doping out your result on the exposure tables included with your film data sheet. But when you shoot by any other artificial light source (3200 K studio lamps, flashbulbs, electronic flash, or household lighting) you need color-compensating or light-balancing filters to adjust the quality of lighting to the color response of the film. If you don't use these filters, the resulting colors in your pictures will not look natural.

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	f4.7 Ektar 5"	333.00	288.00
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you need no correction filters when you shoot by 3200 K studio lights, but you do need filters for every other type of light source, including photofloods. The required filters for use with Kodachrome and Ansco Color are specified by the manufacturers in the instruction sheets packed with the film.

Tastes in color photography have changed since the early days of the mid-1930's. The goal no longer seems to be a riot of color for its own sake; everybody knows that color film can reproduce color—good and loud. Instead, prizes are being won by transparencies that are effective because they reproduce subtle pastel tints or because they dramatize a particular subject by position, lighting, or point-of-view. Naturally, many imaginative workers don't follow the rule of shooting only in bright sunlight. They try their hands at exploring the effects produced by overcast sky and lighting that doesn't fully illuminate the side of the subject facing the camera.

Amateurs will find a wide range of subject matter for color shots all around them. Friends and family, the flower garden in your back yard, the neighborhood swimming pool, city parks, the place you go for a vacation—these all offer opportunities for good color slides. If you plan to make scenic pictures, a good buy is a "haze" filter designed for use at high altitudes or where atmospheric conditions otherwise would produce excessively bluish results.

Yes, 35-mm color is popular today. It's true that few professional photographers specialize in color with a miniature camera. Most magazines refuse to buy 35-mm transparencies because their small size makes them difficult to reproduce. But those who shoot for pleasure rather than profit find 35-mm color a highly rewarding activity. Millions of casual snapshooters use Kodachrome and Ansco Color for record shots of family and vacation; color slide clubs have been organized in many communities; camera clubs have added special color sections to salons, contests, and exhibitions. For beginners and experts alike, the 35-mm camera opens the gates to the exciting field of photography in natural color.—

BOOKS ON 35-mm PHOTOGRAPHY

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The Modern Exakta Guide and Reference Book, 1951, New York: Greenberg, Publisher.

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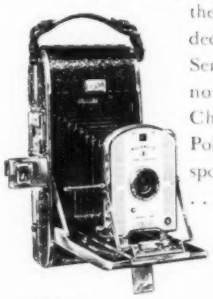

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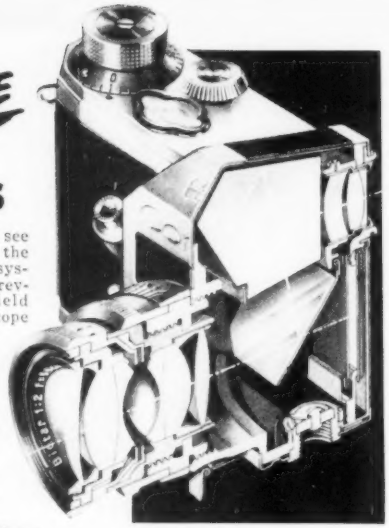

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The Kodak Guide
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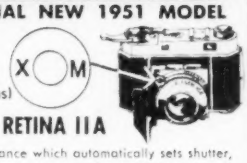

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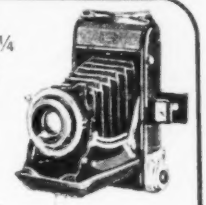

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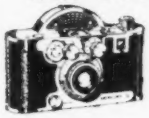

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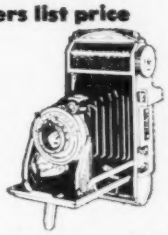

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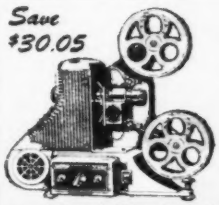

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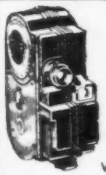

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I Photographed Helen Keller

(*Continued from page* 36)

equipment or waiting for suitable weather. The challenge this time was a mental and emotional one. It demanded ingenuity to show graphically how my subject made three senses do the work of five.

A friend of mine had just read a new manuscript by Helen Keller, and suggested to Miss Polly Thompson, Miss Keller's companion, that I should read it too. It was an intriguing story of her adventures with taste, smell, and touch. It told of how she could distinguish and enjoy the changing seasons by the touch and smell of foliage, how she estimated distances by vibrations, how much the scent of flowers and perfumes meant to her, and finally, how much all of us could gain by learning how to use these three senses fully.

I took the manuscript seriously, and immediately began to make a mental list of its photographic possibilities. Here was a real problem for a person who works in visual images. I decided that I would profit by trying to put myself in Helen Keller's place, so for two days I kept my eyes closed for long periods, and tried to think, "What things would mean most to me if I had to live always in this quiet darkness?"

My first and deepest impression was of the warmth of the sun and the coolness of the breeze; even in the dark I could feel the sun's brightness on my skin. Then the thought of flowers occurred to me, and I made a note to find out whether Miss Keller had a garden in bloom. If she didn't, I'd take some flowers along. I felt sure the expression of her face would reveal her pleasure in the fragrance of flowers. Next I visualized Helen Keller's hands on the face of a young child, learning its contours. It seemed to me that this scene would reveal much of her warmth as a person. All these impressions came to me as I sat quietly in the dark.

I wrote down the ideas and then offered Miss Keller's manuscript, together with suggestions for pictures in color and black and white, to John Morris, picture editor of *Ladies Home Journal*. He assigned me to proceed with the story as planned.

Next step was to select equipment for the job. For the black-and-white pictures I packed a Rolleiflex, Super-XX film, medium-yellow and deep-yellow filters. For color I took my 8x10 view camera, three holders containing six sheets of Ektachrome, and 81A and 81B filters. These are light-balancing filters which I use to cut haze and "warm up" a cold light. I also took a 4x5 Speed Graphic and five holders loaded with Ektachrome. Because I had decided to use diffused daylight—open shade or overcast sky, depending on which was available—the filters were essential. I hoped for one sunlight shot which would give me a lead picture for the story.

Then arose the question of my most important prop. I needed a child—exactly the right kind of child. I got on the telephone and a few minutes later had ar-

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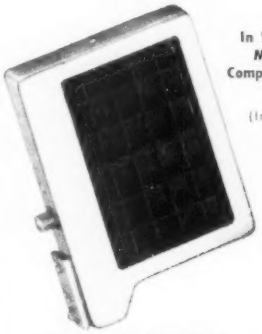

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ranged to borrow five-year-old Gregory Hayes, a very well-organized little boy with delicate features and photogenic coloring. His mother agreed to accompany us and to try to explain to Gregory about Miss Keller's blindness and inability to hear. A friend of mine who knows Helen Keller sent some flowers, and my prearrangements were complete. Now all I had to do was take the pictures.

When I reached Miss Keller's home near New Fairfield, Conn., I realized that my concern about flowers was wholly unnecessary. They grew everywhere and, as I had suspected, were often tended by the mistress of the house.

I decided that my first shot would be of Helen Keller's hands exploring the little boy's face. When Polly Thompson told her, she was delighted. (They communicate by means of a manual alphabet, pressing the fingertips on the palm of the hand.) Then came the problem of coordination. Miss Keller didn't know when I would be ready to shoot, and there was no point in my saying "Hold it!" when she couldn't hear me. Gregory was quite patient, though somewhat worried because he didn't understand why Miss Keller couldn't see him. Altogether I had just about 30 seconds to get into position, focus, and shoot the scene in color and black-and-white. I worked as quickly as I could, shooting the color candidly with the Speed Graphic at 1/25 second with the diaphragm at f/4.5, through the 81A filter. The camera was hand-held, and the light very hazy.

The Rollei was dangling around my neck, and I managed to get two black-and-white shots while there was still some spontaneity in the scene. Then Gregory began to get restless, and I knew he would be of no more use to me. He wanted the baseball glove I had promised him, and he wanted to go home. I was not too concerned, though, because I felt sure I had just the shots I wanted.

I told Polly I wanted to do the flower pictures next, and she asked Miss Keller to pick some roses and smell them. I wanted close-ups of just her face and the flower, and of course I had to move rapidly. I was using the Speed Graphic again and shooting this time at 1/10 second because the light was even softer than it had been for the first pictures. This time I got only two shots because she moved too quickly and her expression changed constantly. I shot from an angle which would show the face in semi-profile with the flower, and sometimes in spite of myself I said, "Now look up!" and "Turn your head!" and "Just one more!"

But soon I found that I need not have been concerned about getting "one more." Helen Keller has an extraordinarily expressive face and when she picked the flowers and smelled them, her reaction was so completely natural and unposed that the resulting pictures had precisely the sensitive quality I had visualized.

One more chance for a black-and-white picture came when Miss Keller's big police dog, "Et Tu," came dashing up to her. Still sitting on the grass, she threw her arms around him and held him close to her with great intensity. I had time

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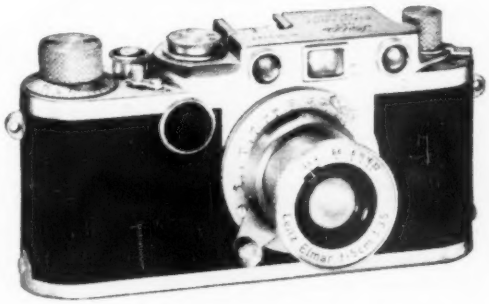

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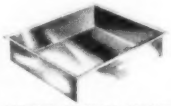

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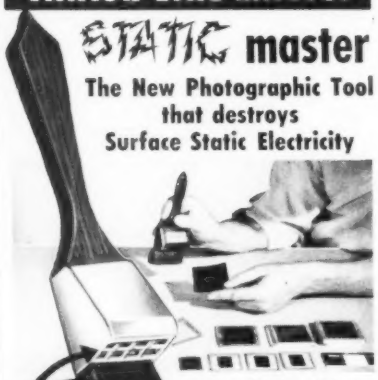

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I was still worried about the assignment because there had been no chance for the lead picture I wanted so badly. I needed time to think, so when Polly asked me into the house for a cold drink I gratefully accepted. The inside of the house was charming, and Miss Keller seemed to know her way around perfectly. As I looked about the room I saw a chair in front of a large picture window. "Does Miss Keller ever sit there?" I asked. "That's where she always sits when the weather is good," answered Miss Thompson, "she likes to feel the sun on her face; if you wait a minute she will sit there."

I waited, and soon Miss Keller did sit down, looking thoughtfully out the window as though she could see the flowers and shrubs and the threatening rainclouds. It is just right, I thought. Now if only the sun would come out. . . . And it did.—

NADAR père et fils

(*Continued from page* 93)

great day for photography. On the plates, at last, was a feeble, blurry image of the suburb! Now all that remained was to repeat the operation, correcting his technique as this first experiment dictated.

But wait—why had he been successful this time and not before? Feverishly he went back over his preparations to find the key, the secret. What he discovered was something so simple, so elementary, that Nadar almost refused to believe it could have made all the difference. In normal balloon operation, a small exhaust valve at the bottom of the bag is left open to allow for expansion of the gas at high altitudes under a warm sun. On that particular chilly morning, of course, there had been no question of letting any gas escape; Nadar had closed the valve. And for the first time his plates were free of the mischievous action of hydrogen! "Silver iodide and hydrogen sulfide," he reminded himself, "make a bad marriage which can bring forth no offspring." And so aerial photography was born.

Only a few years after these pioneer exploits, Nadar began looking for new worlds to conquer. He became interested in the theory of heavier-than-air flight, and before long he had written a book on the subject called *The Right to Fly*. It had a preface by another far-sighted author of the period, George Sand.

Convinced that the balloon's days were numbered by the theoretical advance of rigid aircraft, he devoted himself to the new cause. To raise money for the "Society for the Advancement of Heavier-than-Air Flight" he built a monster balloon, the *Giant*, with which he expected to tour Europe and draw attention to his views. It was to be a "balloon to end all balloons"—and here Nadar didn't know how close he came to speaking prophetically!

On its first ascension, Nadar flouted superstition by taking 13 passengers aloft. The second ascension, with nine people aboard including the balloon pioneer Montgolfier, ended in disaster. The

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Giant traveled from Paris, over Belgium and Holland, to a town near Hanover, Germany, in about 27 hours. There it ran into difficulties, complicated by disagreement among crew members. It descended, but winds bounced it along the Prussian countryside for more than 20 miles. Everyone aboard was injured, and Nadar himself broke a leg. He tells the whole story graphically in his book, *Memoirs of the Giant*.

Nadar lived long enough for the early experimental flying machines to justify the confidence he had had in them a generation earlier. Though firmly convinced by 1870 that the balloon was a thing of the past, he offered his services as commandant of the balloon corps which kept Paris in contact with the outside world during the Prussians' seige of that year.

Honoré Daumier, the celebrated caricaturist, was a close friend of Nadar, and his attitude toward both photography and aeronautics was probably typical of the average French citizen. He thought photography was dangerously encroaching on the artist's territory, and as for ballooning—it was just one more way to break one's neck! He made numerous lithographs ridiculing both activities, and the most famous is the one reproduced on page 80, titled by Daumier, "Nadar Raising Photography to the Height of Art."

In 1880, at the age of 60, Nadar decided to retire from active commercial photography. He turned his studio over to his 24-year-old son Paul, who was even more enterprising than the old man. In short order, he established himself as a leading theatrical photographer, director of France's outstanding photographic magazine, and head of a large establishment for manufacturing and distributing photographic supplies for professionals and the rapidly-growing band of amateurs.

The pictures illustrating this article, unless otherwise credited, are from the collection purchased from Paul Nadar's widow by the well-known fashion photographer Horst. The old lady still lives in Paul's studio, listed in the most recent Paris telephone directory as "Nadar P. photo portr. 48 r. Bassano (8e)," but no one carries on the tradition of the illustrious father and son.

Nadar *père* lived for thirty years after abandoning his career, long enough to watch a procession of lesser men try to match his genius at portraiture. But not long enough to see anyone succeed.—*H. M. Kinzer.*—

ADDITIONAL PICTURE CREDITS

Due to mechanical difficulties, four picture credit lines were omitted from the October, 1951 issue of POPULAR PHOTOGRAPHY. The credits are as follows: page 43, Photograph by Fenno Jacobs; page 51, (Gloria Swanson portrait) Courtesy *Life* © Time, Inc.; page 51, (portrait of Philippe Halsman) Photograph by Bill Schropp; page 53, (New Boy's First Day) Courtesy *Look* magazine.

What Are You Trying to Do?

THINGS are getting bad. Not long ago, an advanced amateur photographer asked me if I knew of a "35 mm ultra-speed-lens-camera with tilting and swinging back, and rising and falling front, with a magazine-type back to take up to 3¼x4¼ size film." He might have been joking—yet at that he has indicated with his question the past, present, and future interests of photographic dabblers. All this seems to add up to the very sad fact that very few would-be photographers know what they are doing when they look at a camera or any other piece of photographic equipment.

The present interest (let alone the future) seems not to be in the making of a picture, but centers, somewhat oddly, in the fine and intricate mechanisms of camera, enlarger, exposure meter, flashgun, or what have you. The neophyte asks first, "How fast is the lens?" Or else he's concerned gravely with "Does that shutter go up to a two-thousandth?" before he gives any thought whatsoever to "What do I intend to use this camera for anyway?"

So many of us overlook this direct and best approach; so many of us fail to ask ourselves this simple yet all-important question. It takes us years to learn finally what our camera is really for. And when we do find out, we proceed to get rid of all sorts of useless gadgets and junk. We begin to take pictures and see them reproduced on paper.

For instance, Joe felt he was too limited with his miniature reflex and thought he could do better work with a press-type camera. But no sooner did he get his press camera, when a larger reflex, with built-in flash synchronization, appeared on the market. So Joe made the same mistake that all gadgeteers make. He immediately traded. That was three years ago. Two years ago we found him trading for a special German-make quality camera with four lenses. A year ago we found him trading for a different German-make reflex. The point is, Joe never shows any pictures! Joe and his kind are forever showing cameras, but never pictures. He's not a photographer; he's a pure and confirmed gadgeteer.

Silly? Of course it is silly, but no sillier than the many real examples of Joe's type found in every photographic store, forever hunting for the next new gadget.

If your only concern is to get a few family pictures on a Sunday afternoon, then you need go no farther than a plain box camera or some simple folding type camera. Then follow the simple instructions, and believe me!—you'll get good pictures. And by using a couple of floodlights in suitable reflectors, you can do very well indoors at evening time.

Supposing now that your aim is more complex—even artistic. You want to photograph scenic beauty—outdoor activity—sports—perhaps record the oddities of your city or town . . . then you naturally need a camera with a faster lens and a shutter capable of various speeds.

Don't run to the next camera unless definitely convinced, after a reasonable trial and after securing advice from more-experienced friends, that your present camera is too limited for the work you have in mind.

If you want to copy and do small objects, get a double-extension bellows camera; if you like candid photography, your best bet is a miniature with high-speed lens; if you lean toward home portraiture, a good reflex-type should fill your bill; for studio portraiture, a larger view camera is the obvious answer. But always—stick to your guns until *you* master *them*. If they master you, you'll be trading and re-trading endlessly—forever looking for new gadgets.

All this talking is in no way intended as a harsh criticism of your attitude toward photography. It is an attempt to help you realize for yourself that the only way in which you can become a better photographer is to ask yourself "What am I trying to do?" and "Am I doing it?"

It's the first step, and it is worth checking at regular intervals as insurance against losing your way.

Of course, if you prefer gadgeteering (I do it with a 35 mm outfit) it's okay with the world and me.—*Charles Yerkow, New York, N. Y.*

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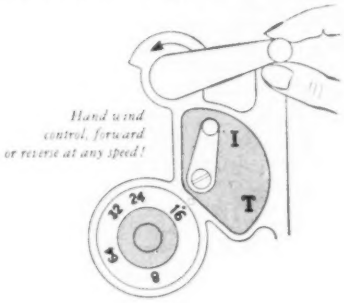

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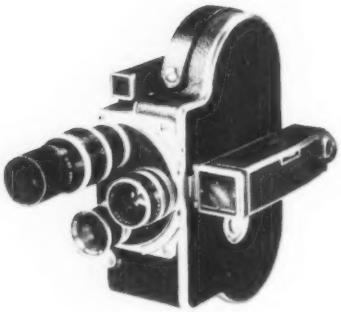

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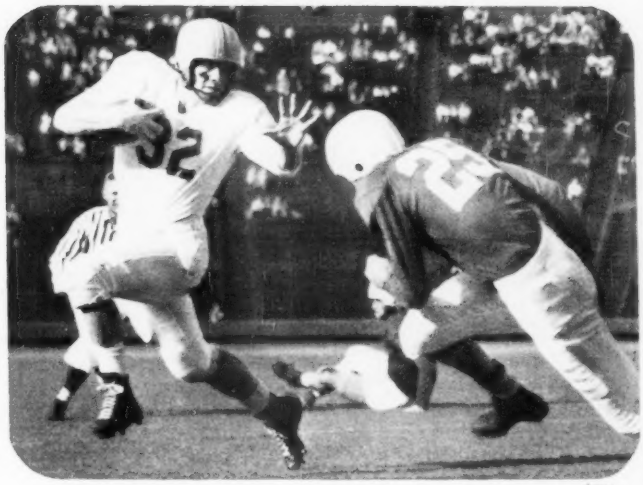
Model H *Bolex* 16mm and 8mm Movie Cameras

How to tackle football movies

By CHARLES L. ANDERSON

Let these tips help you capture the thrilling action and colorful atmosphere of this popular fall sport



NO REAL football fan will leave his movie camera home when he takes in the big game this current season. He may plan to buy professional prints of the matches later, but he'll surely want shots of his own to liven his personal movie reels. Getting worthwhile shots of the game doesn't require any special equipment or outstanding ability. Here are a few tips that should help.

First, your own good judgment will be your best guide in learning to take better football movies. Project your past efforts along those lines and pick out the flaws of filming that bother you most. Put yourself in the place of someone who wasn't there to see them actually played. Audiences want the action to be easily followed. Shots that begin after the play is well in motion are irritating. You may try to justify them by saying that the important action isn't missed. True, the (*Continued on page* 138)

Action (high, right) provides main footage, but don't neglect such scenes as players' bench (above), and fans' excited reactions.

Other atmosphere shots can include coach's pep talk (above), hot dog vendors, scoreboard, even the water boy's dash onto the field.

SHARP FOCUS for better

By LOUIS ELL

Photographs by the Author

AN OCCASIONAL out-of-focus scene happens to the best of movie makers. A focusing ring slips slightly, or the cameraman swings quickly from a closeup to a long shot, and pushes the button before he remembers he hasn't refocused. Such accidents must be accepted and forgotten. However, if scene after scene projects blurrily, or alternates between sharp and just short of a sharp image, something more than accident is to blame, and a remedy must be found.

Unsharp images usually can be traced to mechanical failure in either the lens or the film gate, or to carelessness on the part of the camera operator.

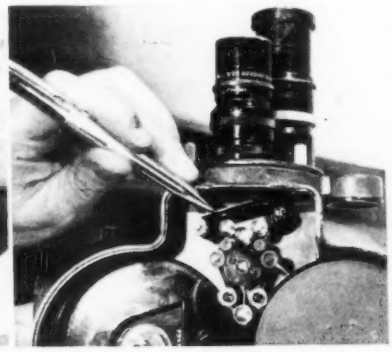
When a camera that normally produces sharp footage suddenly turns out a roll in which every scene is out of focus, check the front and rear elements of the lens for thumbprints, dirt, or grease smudges before doing anything else. If any of these are present, use lens tissue and cleaner to (*Continued on page* 136)

Fuzzy frames, like this, mark a slipshod technique. (Soft-focus close-ups at times will smooth harsh lines and flatter a subject, but the device must be used consciously, sparingly.)

Sharp scenes are more satisfying—better able to stand the extreme enlargement demanded of movie frames. Check the points below as a guide in eliminating out-of-focus frames.

Careful adjustment of focusing ring prior to shooting each scene pays off in scalpel-sharp movies. (This step is eliminated, of course, with lenses of universal focus.)

Check lens for cementing flaws and discolorations by looking through it with white paper in background. If trouble is located here, let manufacturer do the refurbishing.



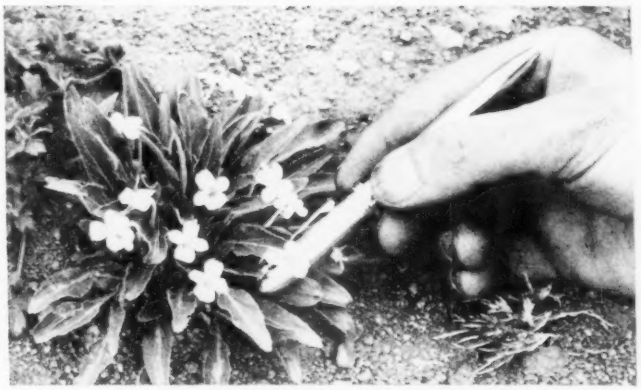
Weak or broken pressure plate spring can cause frames to be out-of-focus, so check them occasionally. If any are found bad, take the camera to a competent repairman.

films . . . . .

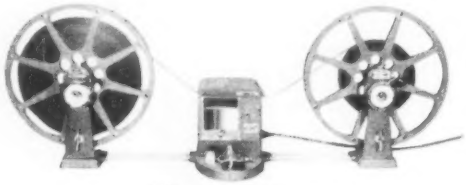
Blurred images—caused by mechanical failure, optical faults, or careless handling—can be avoided. Here's how

Measure medium shot distances by pacing from camera to subject. (Normal pace is about 30 inches, but check yours for greater accuracy.) This is one method of being sure the scene is in sharp focus.

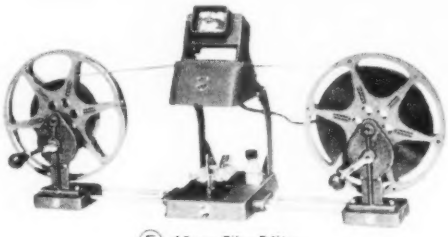
Tape (steel or cloth) shows exact distance for close-ups, such as that of the clump of tiny wildflowers, right. Such care ensures sharp pictures despite critical focus needed when working close to the subject.



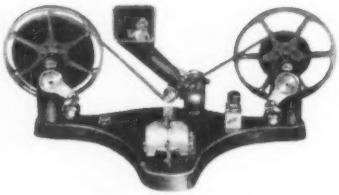
Pocket rangefinder (which can be had for about the price of a roll of 16-mm color film) determines distance for any scene—is especially good when pacing or measuring is impossible, such as for scene, right.



Ⓔ 16mm Filmotion Editor

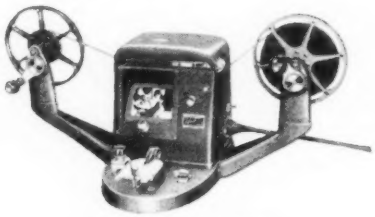


Ⓕ 16mm Film Editor

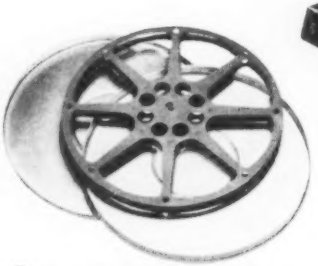


Ⓖ 8mm Film Editor

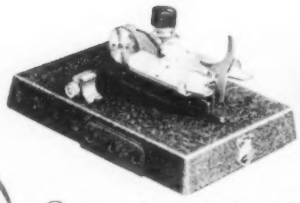
Ⓗ Direct Focuser



Ⓙ 8mm Filmotion Editor



Ⓚ 8mm and 16mm B&H Reels and Cans



Ⓛ 8mm and 16mm 136 Film Splicer

Ⓜ 16mm 72-M Rewind and Splicer

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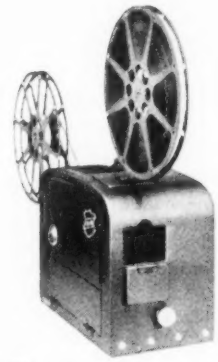
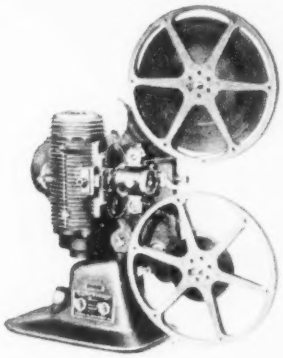


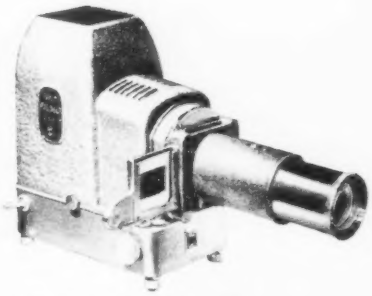
Ⓐ 16mm Single-Case Filmosound

Ⓑ 16mm Diplomat Projector



Ⓒ 8mm Regent Projector

ⒶⒶ Separate Speakers for Filmosound



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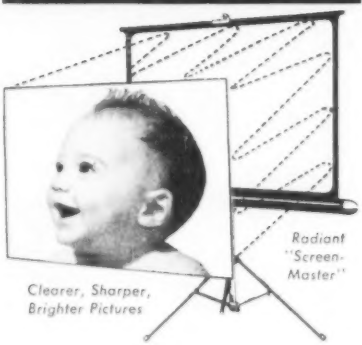

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Sharp Focus for Better Films

(*Continued from page* 133)

remove them, and you probably will have corrected the situation.

If the lens surfaces are clean, shake the lens gently close to your ear. A slight rattle indicates a loose element. Lenses are assembled to very precise tolerances, and constant vibration can cause a retaining ring to become partially unscrewed, allowing an element to fall slightly forward or backward. This destroys the lens' ability to cut sharply. To remedy the trouble, the retaining ring must be reseated. *Only in extreme emergency* should you attempt this task yourself. First, you do not have the special tool needed for the job, and any makeshift you may employ can slip and scratch the soft optical glass. Secondly, undue tightening of the ring will not allow the glass to expand or contract with temperature changes, and it may crack under the strain. The nearest camera repair shop will do the job quickly and safely.

If the lens doesn't rattle, but happens to be of the older, cemented variety, extremes of heat and cold may have caused the cement to weaken and let the elements separate. This condition is usually detectable by holding the lens above a well-illuminated sheet of white paper, and looking through it. Discolorations and mottle or hairline cracks in the cement will be visible. The remedy is to send the lens to the factory that made it for dismounting and re-cementing. As this is an expensive process, a faster, coated lens of late manufacture to replace it might be a more practical solution.

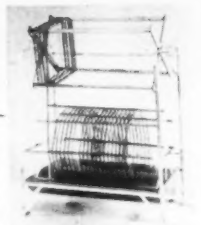
A lens showing none of the previous faults may have suffered a sharp, head-on blow which has telescoped the parts enough to throw it out of calibration. The larger stores can check for this possibility, and determine if readjustment is necessary. Protect the lens from such blows at all times, and never stack things on the camera when it is in its case.

If examination reveals that the lens is not causing the out-of-focus pictures, look at the film gate within the camera. If it is of the latching type, be sure you remember to lock it securely when the film is threaded through. Whole spools of film have been ruined because the gate came unlatched. Occasionally weakening or breakage of the tiny springs on the pressure pad that holds the film in the focal plane allows the film to sag away from the aperture. In this event, the picture may bounce up and down as well as be out of focus. Again a trip to the repair shop is indicated.

If no mechanical failures are present in either the lens or the camera, the trouble must lie in the second, and by far the most prevalent cause of out-of-focus images. You simply failed to focus the lens when you made the shots—or if you did set the scale, it was by that sloppy habit almost universally employed by amateur movie makers: "guesstimation!"

At 20 feet or more, using the regular or a wide-angle lens stopped down to an

YOUR OWN HOME MOVIES



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f/8 or smaller aperture, depth of field will compensate for an error of a few feet more or less and produce a reasonably good picture. However, for best results, the plane of sharpest focus should be on the principal subject, not before or behind it. At close distances with the regular lens, or especially when a telephoto lens is used nearer than its hyperfocal, inaccurate focusing produces images that are, in mild cases, just short of sharp, or extremely blurry if the error is unusually bad.

If you are one who feels that you can "guesstimate" the distance between the camera and the subject with sufficient accuracy, try this experiment.

Write your guesstimation down on a pad. Then pace off the distance, using your normal stride, and count the number of paces. Multiply the number of steps by 2½ feet (the average length of the ordinary stride). Write this figure down beside your guesstimate. Finally, measure the exact distance with a tape, and write this accurate figure beside the other two.

Unless you are an expert at judging distances (and few people are), you will be amazed at how far your guesstimate misses the true distance, and how much closer the pacing method approaches the true mark as determined by the tape.

By measuring the length of your individual stride, you can substitute that figure for the 2½-foot average suggested, and be still more accurate. Pacing is quite satisfactory for distances from ten to thirty feet or more, on level ground.

A really foolproof method of getting the range is to employ the tape mentioned above. It is most practical when the subject is up close, under the ten-foot limit, since at this distance focusing is very critical. Fasten a steel measuring tape in a retracting case below the tripod head with a small clamp. It will always be available. Use it diligently, and your close-ups will record with a wealth of detail seldom obtained through guesstimation.

A strong cord with a knot tied at one-foot intervals makes a good substitute for the tape. It not only takes up less space, but it is nearly as accurate and, if lost, less expensive to replace. For easier counting on the cord, mark every fifth knot with a gob of red nail polish.

Finally, a pocket rangefinder designed for still photography offers a rapid, and probably the most convenient means of getting the range. One of these gadgets can be bought for as little as three dollars, and it can be held in the hand or fastened to the camera body for use.

Since the operation of a rangefinder is mechanical, a heavy jar or a drop on a hard surface can damage it so that it no longer is accurate. Check it occasionally against the tape measure, protect it at all times, and keep it in its case when not in use.

Putting the foregoing corrective measures and suggestions to constant use will certainly aid in securing sharply defined screen images, and thereby lift your home movies one notch higher toward that "professional quality" we all desire to achieve.—

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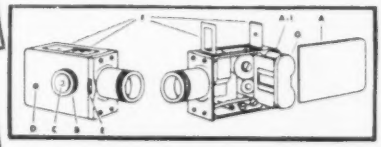

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How to Tackle Football Movies

(*Continued from page* 131)

actual pass or run has not been left out, but it's hard on anyone's eyes to adjust to a new shot and follow an intricate action at the same time. Start your camera running an instant *before* the ball is snapped. These few extra frames give your friends a chance to adjust their eyes to the new set-up. Cutting from the vigorous action of one play into that of the next makes your picture more difficult to view. Move your camera thoughtfully. A camera *can* be panned quickly if it is following the ball in flight; otherwise limit your pans to the speed of the runners on the field.

A fine opening scene for your game picture would be a long shot of the stadium as the fans are entering. If your camera is equipped with a wind-back, you could expose the opening title on the first few feet of film, bring the film back to "0" and then shoot your stadium long shot. This way, it'll be nicely superimposed over the title.

Best locations for filming are usually the most desirable ones for viewing the game, so it might be wise to get your tickets as early as possible. Low seats are a distinct handicap when taking pictures, however, and should be avoided. You can watch a game from the first few rows, but on the screen the players seem to be jumbled together in scenes taken from that angle. Movements towards or away from the camera are much more difficult to follow when photographed from a seat low in the stands, although they may be entirely obvious to the people at the stadium.

You'll want the sun behind you, or to the side. If you're not able to buy seats on the shaded side of the stadium, better play it safe with the addition of a still-camera lens shade or a home-made one fabricated from cardboard, painted black.

I remember a friend who came home from the "big game" with a headache from watching it with the sun in his eyes. "But I've got all the best plays right here on film," he told me, tapping his camera case. "Wait'll we see these films!" When they came back from the processing station, Jim proudly invited me to the first showing. He had picked up more glare than I've seen since crossing the Mojave desert.

"I never saw the sun in my finder," he complained. "Something must be wrong with my camera." But the truth is simply that the sun doesn't have to be *in* the picture to produce glare. The rays had hit the front element of his lens and were reflected back to the film with enough intensity to "wash out" much of the footage.

But Jim understands football and all his later films are a joy to watch. He likes to include the opening kickoff in each picture, and he has learned how to pan across the field.

Picking which plays to photograph is largely a matter of luck. Your guess would be as good as the coach's when it comes to figuring out when a play will

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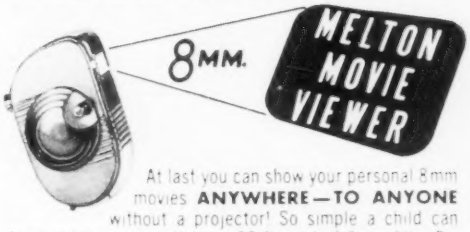

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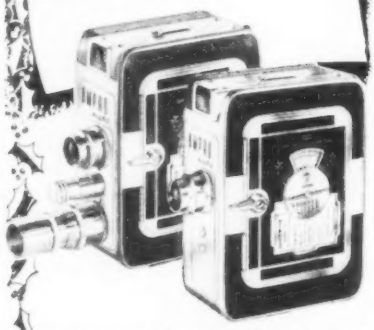

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"click" and gain ten or twenty yards for the team. When the ball is within a few yards of the goal line, you know that a touchdown is possible. Then, if you don't want to miss scoring plays, you may want to film every play while they're close to the goal.

You have a choice of two general methods of recording a game. One is to film sample plays here and there throughout the four quarters. The other is to film a few unbroken series of plays. Most amateurs prefer the first way, but I'm partial to the second. I like to shoot about six consecutive plays at a time rather than scatter my "takes" too much. In this way, my films can be followed like real games for years to come. Football movies that don't include consecutive plays lack real continuity. They show a run here, two passes there, in disjointed fashion.

Ninety-five per cent of amateur football movie footage is shot without a support of any kind. Since we're primarily at the ball game to enjoy ourselves, we have a pretty good excuse for not lugging a heavy tripod. But light-weight unipods make a perfect support for sports filming. They hold the camera steady for the still shots and make panning far smoother. If your camera is one of the heavier ones, a unipod will take some weight off your hands, too. The price of a unipod is less than a roll of 16-mm color film.

Those long, long lenses every amateur loves to buy as soon as he can arrange enough credit with the bank are finally put to use at the football game. Until then, they may have been used for a few random shots, but their main purpose in life has really been to fill those two gaping holes in the turret. And now, at the big game, these lenses are given a real job! No part of the field is the "far end" when you have a long lens to switch to. Any play can be brought close enough to your camera to be recorded with clarity and detail. The longer your lens, naturally, the larger will the players appear on the screen. But camera movement and vibrations of all sorts are amplified by these stronger objectives. Handholding a 16-mm camera with a 2-inch lens is barely allowable if you have a steady grip. A tripod is a necessity with lenses of any greater focal length.

Don't limit your shots to the action on the field. Give your audience the "feel" of the game by including atmosphere shots such as the men on the bench as they rise in the excitement of a good run, the refreshment vendors, the water boy running out on the field, the huddles during time-out periods, the head linesman as he carries the chain out on the field to measure for a close first down, and the cheering crowds in the stands. Later, you can inter-out this footage into the actual on-the-field action for a more complete presentation of the game.

You'll find that you're allowed more latitude in moving about the field for angles at high school or neighborhood games. I have taken my camera right to the sidelines at a high school game and photographed some of the plays from there. Shots taken at this location are often more difficult to follow on the screen, but they're certainly filled with action. Standing a few feet behind the goal posts, you often can get an excellent shot of a touchdown being made. The first time I used a camera on the sidelines, I kept moving up and down the field trying to keep up with the players. A few minutes of such effort taught me that it's better to stay at one end and wait for them. No sooner had I hiked to the far end, than a surprise kick sent the ball back to where I had been. Having learned my lesson, I waited there and was rewarded with a shot of the final touchdown play.

A good way to title the different quarters of a game is with shots of the scoreboard. If your lens will bring the numbers close enough to be read clearly on the screen, you have a "natural" for identifying the quarters. Important plays that are taking place just before the end of a half can be dramatized with shots of the timer on the scoreboard. And the scores themselves can be registered at the close of the game in a shot of the board.

The half-time spectacles at the larger games make colorful filming. A few good shots of the band marching in formation will show what they're doing. Card stunts look especially good in color—and doubly so if the cards used are of the metallic foil type. A good trick is to let your camera run at eight frames a second when photographing the card effects to speed up their changes.

I can picture the surprise your friends have waiting for them if you're going to shoot truly fine football movies this season. "Want to see some films of the team?" you might ask casually.

"Sure, we'd like to watch them," they'll answer, perhaps with some misgivings. But what a reel you'll project! Plays shot from start to finish, smooth camera operation, clear scenes free from glare, and colorful shots of the sidelights on the games.

"Now this is what I call *really* seeing a game," you'll hear. "Could you rewind it and show us that last reel over again?"

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Popular Photography — Arnold Gatch

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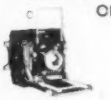

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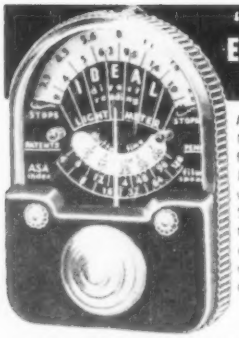

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home movies

MOTORS ON PARADE. 1 reel, 26 mins., 16 mm black-and-white sound. Free loan, except for return transportation. Public Relations Department, Delco Products Div., General Motors Corp., 329 East 1st St., Dayton 1, Ohio.

The opening of this film features a stop-motion parade of Delco motors against a background of the Delco plant. Represented in the parade are fractional horse-power washing machine motors, hermetic type refrigerator motors, and industrial motors. Parker Fennelly, better known as Titus Moody in the Fred Allen radio show, narrates the Delco story while playing the role of "Old Timer."

MYSTERY OF THE INCAS. 29 mins., 16-mm color sound. Free loan, except for transportation, to group. Ideal Pictures, 58 E. South Water St., Chicago 1, Illinois.

World traveler Armand Denis takes the audience through the ancient Inca civilization as uncovered by twentieth century archeologists. The Inca Museum and the wondrous beauty and strange customs of this centuries-old civilization are seen in this film, sponsored by the Dodge Division of Chrysler Corporation.

FACTS ABOUT PROJECTION. 11 mins., 16-mm black-and-white sound. Sale price $50. International Film Bureau, 6 North Michigan Ave., Chicago 2, Illinois.

This film explains that a projectionist must run over a check list of precautions in advance of the showing to assure an unobtrusive performance. He gives attention to the kind of power, source of power, light control facilities, ventilation, positioning of the screen, setting up of projector and speaker, plugging in cords safely to guard against tripping, adjustment for correct image size, proper control of volume and tone in relation to the room, a final check on dust in the aperture, and preparation for threading.

amateur screen notes

Of interest to the distributive education field is a series of instructional filmstrips released by Young America Films under the title of "Consumer Education Series." The set of six black-and-white film strips, each approximately 40 frames, is recommended for use by high school, college, and adult groups. It consists of these individual strips: "How to Buy a Blouse," "Select Your Style," "Your Retail Store," "Facts About Rayon Fabrics," "Facts About Wool Fabrics" and "Facts About Cotton Fabrics." The complete set can be purchased for $16.20 from Young America Films, Inc., 18 East 41 St., New York City, 17.

* * *

Harold Ranstone has been named president of the newly-organized Haddion Films, Inc., with offices at 516 Fifth Avenue, New York City. Dan Hoffarth is vice president. Both men have been engaged in the 16-mm film business for the past 15 and 20 years respectively. Haddion has acquired exclusive 16-mm distribution rights to 34 pictures.

* * *

Jack C. Flynn has been elected to the advisory board of the Germain School of Photography, 225 Broadway, New York City. Flynn is supervisor of photography in the general publicity department of the Union Carbide and Carbon Corporation. He has written two books on photography and has produced 13 filmstrips on darkroom procedures. He is a member of the Society of Motion Picture and Television Engineers.

* * *

Bailey Films, Inc., announces its removal to new and larger quarters at 6509 De Longpre Avenue, Hollywood 28, Calif. The new building allows space for animation, cutting rooms, film storage and shipping departments. It also allows space for a new rental library to be known as Film Rentals. Starting with a list of about 600 subjects, including all films handled by members of Allied Independent Producers (Academy Films, Arthur Barr Productions, Bailey Films, Inc., Johnson Hunt Productions, and Paul Hoefler Productions), the library will be expanded to serve producers whose products are not currently available on a rental basis. The company's new free catalog is available on request.

Hollywood report

The movie capitol, chastened by rampageous TV, has begun to make motions that look like the beginning of a renaissance. We're backing up this opinion by inaugurating a new department by well-known writer-photographer Louis Hochman, who will give us the inside on what goes on

How filters helped change Dr. Jekyll to Mr. Hyde

THEY call Hollywood a lot of things. Land of Make Believe, Land of the Grand Illusion, and Home of the Fabulous Fakers are but a few choice names bandied about the Sunset Strip. A group of recent pictures now coming out of the better picture mills more than back up these labels.

In Columbia Pictures' *Son of Dr. Jekyll* (a celluloid offspring of Robert Louis Stevenson's *Dr. Jekyll and Mr. Hyde*), Louis Hayward, playing Dr. Jekyll, Jr., follows in his screen father's footsteps and winds up literally making a monster of himself right before your eyes. What's more, the entire process of conversion from handsome Hayward to horrible Hyde takes place in one continuous, unbroken take during which our hero squirms and writhes in simulated agony. To find out how it was done, I talked to Clay Campbell, Columbia make-up artist, who dreamed up the stunt—and it's a pip! With his secret, you, too, can be a monster.

Using a red lipstick pencil and red rouge makeup, Campbell carefully made up Hayward's features to look like the monster, Hyde. Sharp lines were drawn in red pencil and delicate shading was done with the rouge. To the naked eye all this fancy makeup made Hayward look like a bloody mess. But, after covering that naked eye with a red filter—Presto! No makeup! The red filter obliterated all signs of the red makeup, giving Hayward the appearance of just plain Hayward. Then the red filter was replaced by a blue filter, and—Yipe! Hayward suddenly became the horrible Mr. Hyde! His red make-up appeared dark through the blue filter. When you try this stunt with a cine camera instead of your eye, you get a moving record of the transformation.

For this phase of the operation, cameraman Don Glouner mounted a 6x red filter alongside a 12x blue filter and slid these past the camera lens while filming the writhing Haywood. As long as the red filter was over the lens, Dr. Jekyll was being filmed. Then, as the blue filter edged it off, Dr. Jekyll gradually changed to Mr. Hyde.

To compensate for the difference in exposure required by the two colored filters, neutral density filters were added to the red filter until it equalled the blue in light transmission. Glouner also was careful to have all other props and clothing in the scene neutral gray, which would remain unaffected by the change in filters. Even Hayward's features under the red make-up first were covered with an over-all base makeup of neutral gray.

For fire fans, 20th Century-Fox's *Lydia Bailey*, a Technicolor period piece, features a palace-razing scene that had me looking for the nearest exit—just in case. Right in the middle of a sound stage, the set of a palace interior was enveloped in roaring flames, and pounded with the crash of timbers and broken masonry.

Watching that crew handle the flames was a real education. They had spotted long, narrow "fire pans" on the floor behind windows, doorways, and corridors, which, when fed with gas from a pressure tank, shot billowing, ten foot-high flames through and around various parts of the set. By turning the pressure up or down, they made those flames dance to the tune of the director's demands. As a precaution, the set itself, and all drapes, were first flame-proofed.

Overhead in the rafters, a couple of large, fireproof trays, mounted like trapdoors, held a generous assortment of flaming timbers and broken masonry. As the actors made their hasty exits from the flaming scene, the trapdoor trays were dumped, and they poured their flaming loads right into the spots vacated by the cast just a few seconds before.

Back at Paramount, cameraman Lionel Linden, who filmed *Destination Moon*, tells me that since his completion of *Submarine Command* he can't look look a sardine in the eye without feeling a peculiar kinship for the finny creature. In that naval opus, realism was carried to the nth degree by shooting all the sub sequences inside the narrow confines of an actual navy submarine.

"Imagine cramming 16 men, together with sound camera, lights, mikes, and what-not, into the conning tower of a submarine which already is cluttered to the gills with its own periscope tubes, radar equipment, controls, and other gear," says Linden," and you get an idea of what we were up against."

A sub conning tower's insides measure about seven feet in diameter and 14 feet deep. The cameraman would squeeze into his spot and have the camera lowered down over him. From then on, he had to stay put until the scenes were shot. Everybody worked like a chain gang. If low man on the totem pole wanted out, each man in sequence took one step sideways to let him pass. Using a mike boom in that sardine can was out of the ques-

Transformation of actor Louis Hayward from Dr. Jekyll to Mr. Hyde was done in an unbroken sequence, using red makeup, red and blue filters. With red filter in front of lens, makeup was not apparent, but as blue filter was substituted, horrible Hyde took shape. At bottom, director Friedman pauses to check effect

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tion, so sound man Harry Lindgren invented a magnetic device which made it possible to "stick" mikes to any part of the sub's steel walls.

For lighting units, Linden used common photofloods with clamp-ons, some R-2's and some naked No. 1's and No. 2's, which he spotted around the walls. All glass and polished metal surfaces, which reflected the activities of the camera and crew into the camera lens, had to be "demirrorized" with dull wax coating. To cover his cramped field, Linden alternated between a 30-mm and a 15¼-mm wide-angle lens.

Down in the 26-inch wide corridor between the officers' quarters, Linden even managed dolly shots with a specially-built, 24-inch wide, one-man dolly, which gave him all of one-inch clearance on either side.

"We even simulated fire scenes in that sub," shudders Linden, "by laying out flame pans in the corridors and filming the asbestos-clad fire fighters rushing in to douse the flames. The smoke was terrific. We just gagged and coughed—and hoped for the best. That's what we got, too,—the best fire scenes I've seen in a long time."

To simulate the jolt of a depth charge, Linden would rap the top of the camera with his hand at the right moment, and the actors would simultaneously go through the motions of being bounced around. The resulting jarring blur is very convincing.

And why all this punishment to shoot in an actual sub? "Well," explains Linden, "when you see it on the screen, you get the feeling of actually being in that sub. The walls seem to close in around you. You want to gasp for air. You can't beat it for realism."—▶

WATCH FOR . . .

The following features, currently showing at neighborhood theaters across the country, are recommended as excellent examples of cinematography. They can be viewed with profit by both still and movie photographers.

THE MAGIC CARPET—*Columbia*—Lucille Ball and John Agar. Photography by Ellis Carter, in Super Cinecolor. Plenty of trick photography.

BRIGHT VICTORY — *Universal-International*—Peggy Dell, Arthur Kennedy. Photography by William Daniels, in black-and-white. Mood photography so beautifully done the audience is never aware of it.

BEHAVE YOURSELF—*RKO-Radio*—Farley Granger, Shelley Winters. Photography by James Wong Howe, in black-and-white. Good, if only because Howe filmed it.

DAY THE EARTH STOOD STILL—*20th Century-Fox*—Michael Rennie, Patricia Neal, Hugh Marlowe. Photography by Leo Tovar, in black-and-white. More good trick photography for exciting effects.

AMERICAN IN PARIS — *M-G-M*—Gene Kelly, Leslie Caron. Photography by Al Gilks, in Technicolor. Outstanding scene is the black-and-white dance, in which the entire set and all costumes are plain black and white, with the only color in the sequence being the flesh tones of the dancers.

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White House Photographer

(*Continued from page 73*)

Washington, seeking all news of national import.

It is possible, on the other hand, for my opposition to station a photographer at the presidential offices for all-day coverage. Of course, this is advantageous for them, but an obvious handicap for me. As a result, there are some interesting and eye-appealing pictures made at the White House which I necessarily miss.

One morning, for example, the appointment list revealed nothing of apparent interest, so I decided to cover a Senate hearing. Meanwhile, a visitor on horseback from the mid-west, hankering for a confab with the President, galloped up to the White House gates. He had not informed 1600 Pennsylvania Avenue of his visit. But an aide told the Chief Executive of the unexpected visitor. So the President, on one of his sudden impulses, rose from his desk, strode past the press room, and onto the White House grounds.

There, as photographers on hand fired away, Former Farmer Truman lifted the horse's hoof. This was a good, unusual picture, and one that was published in the *Times*—with credit to my opposition.

Other times, what may outwardly appear as just another illustration of a normal presidential function, may surprisingly provide an interesting and newsworthy photo. For on one occasion, the President may greet a group of visiting "firemen" in the White House rose garden and digress momentarily from his formal notes to hint as to his future political aims, or to say what he thinks about a certain five-star general. Such instances automatically convert seemingly "routine" pictures into ones with a good chance of publication.

One picture in July, 1948, for example, came as a surprise to me. For, as a result of one of my photographs, the *Times* scooped every paper in the country on a White House news story.

The circumstances were unusual. Just before the Democratic convention, we asked the White House for a "nomination portrait" of the President at his desk. The White House consented.

While taking the pictures, I noticed that Mr. Truman was scribbling notes on a pad. For a moment, I was fearful that the notes involved matters of national security.

Therefore, contrary to my usual practice of shipping my film to New York undeveloped, I processed these particular shots here. In enlarging the negatives, I discovered that the memorandum was entitled "Ten Points," seven of which had been jotted down. I called the attention of the notations to the *Times'* White House correspondent who immediately realized that they formed the nucleus of the acceptance speech Mr. Truman intended to make at the Democratic convention. It obviously would not violate national security to publish these points.

So our correspondent sought out the remaining three points from his sources

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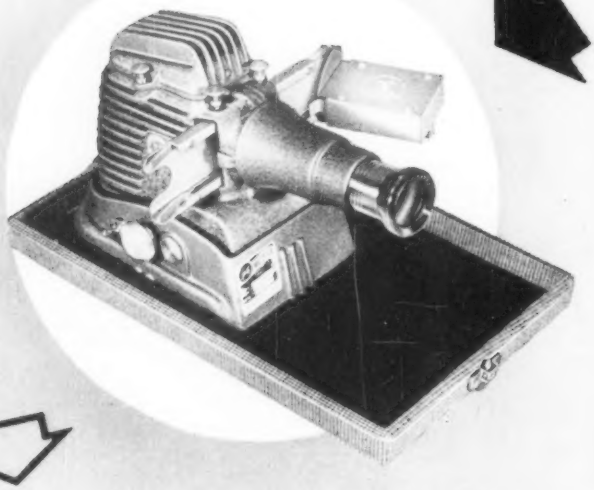

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and wrote the exclusive story. Because of the incident, I almost lost my White House credentials. But my office unofficially intervened and the White House realized that no harm was done by the publication of the story.

There are, of course, few instances in news photography when a cameraman furnishes his paper with such journalistic beats. The fact remains that it is never possible to know when to expect the "unusual" in pictures. This adds to the pains of the White House headache.

Then, too, the White House photographer doesn't have the freedom of choice that's so common in other photographic fields. Unlike portrait or commercial photography there is little room for any real "imaginative or creative" work in which various types of camera equipment are used.

In contrast, the photographer here is limited precisely to the events which the White House feels should be covered. This is rightly so. And, too, when the photographer is called into the President's office, his only equipment is his 4x5 Speed Graphic, a couple of film holders, and a few flashbulbs. But these particular aspects do not simplify things. For there's the additional problem, once inside, of capturing the interesting facial expressions and actions of the nation's number one citizen.

Last Thanksgiving, for example, I fortunately recorded both action and expression as the President was presented with a live turkey which was to adorn the Blair House dinner table. As we entered the President's office, the turkey remained quite passive, seemingly resigned to its fate.

Suddenly it gave out with its last fling for freedom—freedom from the ax. He flew into the air; the President raised his arm in a move at self protection. I shot at that instant and fortunately came up with a rather unusual picture that appeared the following day.

Besides this job of providing my paper with better pictures, there's the extra job of getting the photographs to New York in time. True, the *Times* is a morning newspaper, and so the picture deadline is early evening. Usually, if I get my films on an early afternoon train, they'll get to the Big Town in plenty of time. Occasionally, though, it's not that simple.

One afternoon the then Mayor of New York, William O'Dwyer, came down to Washington to be sworn in as the new Ambassador to Mexico. Obviously, this was a terrific story for the *Times*—local boy makes good and all of that. But the ceremony didn't come off until late afternoon. Nervously, I kept glancing at my watch as the minutes stole closer and closer to train time—then passed train time. I was in a spot.

The opposition would wire their pictures, and next morning the *Times*—with a Washington photographer—would have been in an embarrassing position. It would have to publish the same shot all the papers buying the service, but without photographers on the scene, would publish.

Finally, the ceremony came off and as I snapped Mr. O'Dwyer's picture an idea

came to me. I recalled that my office had told me that he was flying back to New York a few moments after the ceremony.

Well, Mr. O'Dwyer wasn't born yesterday, and he knew the value of doing a favor for one of his home-town papers. It was worth trying.

"Mr. Ambassador," I asked, "could you help me out and take these pictures of you up to New York?"

"Sure," he consented, "give me the film and have someone meet me."

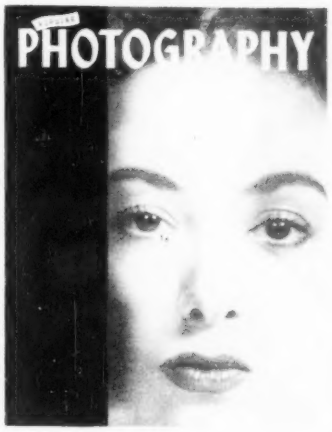
And when he was met in New York by my office, Mr. O'Dwyer remarked: "Very happy to oblige."

The next morning the *Times* ran a small boxed story about my experience with the Ambassador and declared that being "accommodating and helpful is one of the requisites of a diplomat."

Indeed, covering the White House and Washington has its complications, its excitement, its frustration, and its rewards. For Washington, the focal newspoint of the nation, is a bustling capital, a city sprinkled with would-be assassins, visitors on horseback, restless turkeys, accommodating Ambassadors, and an unpredictable President.

Together they all total one big headache after another (and plenty of fun, too) for a White House photographer.—

THE NOVEMBER COVER



Look magazine's chief photographer Arthur Rothstein, developed a standardized procedure for handling all the negatives which come into *Look*'s darkroom, but he likes to try his hand at new things whenever he can. For a long time he wanted to see what effects he could obtain by shooting in color through sheets of transparent colored gelatin. This month's cover is a result of that experiment. Rothstein photographed model Serena Sande in *Look*'s studio with an 8x10 Deardorff view camera equipped with a 12-inch f/6.3 Kodak Ektar lens. He lighted Serena with two 1,500-watt, 3200 K floods, and placed large sheets of the colored gelatin at various distances from the lens, between the lens and the model. The fading effects of the colors were obtained by carefully controlling the distance of the gelatin sheets from the camera, and the shot was made in one exposure on Ektachrome Type B film, shooting for one second at f/8.

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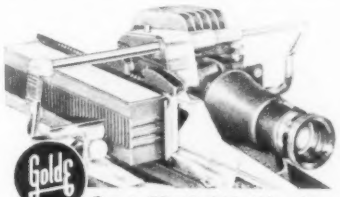

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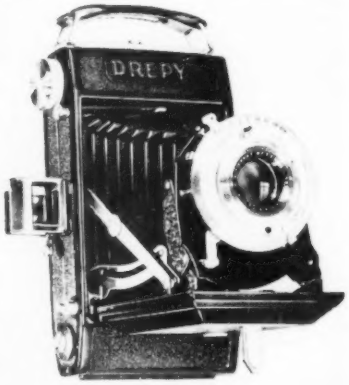
trade notes and news

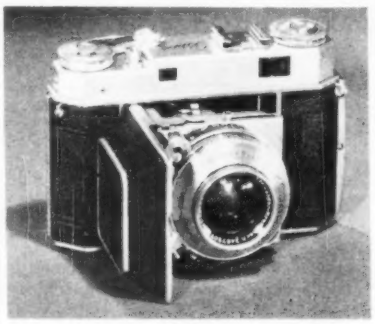
A FOLDING CAMERA, the Drepy, made by the French firm of Drestop, is now available from Benard Sales Co., Inc., 150 Nassau St., New York, N. Y. The Drepy uses 120 rollfilm, and produces either eight $2\frac{1}{4}$x$2\frac{1}{4}$ or 16 $2\frac{1}{4}$x$1\frac{5}{8}$ negatives. A 9-speed shutter with speeds up to 1/250 seconds and B, internally synchronized for flash, is provided. The lens supplied is a coated *f*/4.5 Drestyl. Other features are an eye-level viewfinder,



with adjustable mask for either picture size, body shutter release, built-in self-timer, and leather bellows. Price is $45, including tax. Complete accessories are available. Write the distributor for additional information.

AN EXPOSURE METER designed primarily for color film is announced by General Electric Co., Schenectady 5, N. Y. The new photoelectric-cell meter, called the Mascot, measures about the size of a matchbox, and shows correct camera settings by direct reading, without the need for conversions, calculations, or special scales. The meter will function equally well for both color and black-and-white film. The meter is used by pointing it directly at the subject or scene to be photographed, and reading the scale. For price and additional information, see your dealer or write the manufacturer.

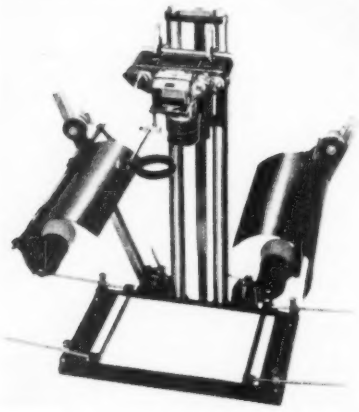
A NEW RETINA is announced by Eastman Kodak Co., Rochester 4, N. Y. The new Kodak Retina IIa has a coated *f*/2 Schneider Xenon lens in the new Synchro-Compur shutter, which is fully synchronized for all flash. The new shutter has speeds up to 1/500 seconds. The camera also features a coupled rangefinder of the superimposed image type, and rapid film advance and shutter cocking by means of a thumb-lever wind. The thumb lever winds the film, cocks the shutter, sets the film counter, and unlocks the body shutter release. When the last exposure has been completed, the thumb lever



and body shutter release are locked, preventing the taking of more pictures. Price of the new Retina IIa is $168.50, including tax, which represents a decrease in price from the previous model. See your dealer or write Eastman Kodak for additional information.

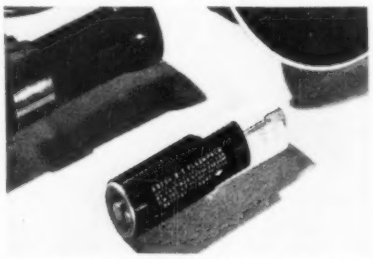
MOVIE MAKERS are offered a new 1-inch, *f*/2.5 Comat lens as standard equipment on all new Bell & Howell Auto Load and Auto Master 16-mm cameras. Bell & Howell Co., 7100 McCormick Rd., Chicago 45, Ill., manufacturers of the camera and the lens, announce that the new optics are enclosed in an aluminum fixed focus mounting, with click stops and an iris scale from *f*/2.5 to *f*/32. At its smallest opening, the Comat will focus sharply on objects as close as two feet, two inches from the lens. The engraved scale can be turned to the most easily read position. The Comat will not interfere with any viewfinder, and will not offer difficulties in use with lenses on any turret camera except the 1-inch T-2.5 Panchrotal. The new lens may be purchased alone for $64.95, including F. E. T. See your dealer or write the manufacturer for additional details.

A COPYING STAND, complete with easel, four lamps, focusing scale, camera mount, and holder for supplementary lenses and filters is offered by Exakta Camera Co., 16 W. 29 St., New York 1, N. Y. The lights are



adjustable to any position from 45° to 90° and the camera rides on an elevating mechanism that can be set at any height by means of a lever. For price and additional information, write Exakta Camera Co.

A B-C UNIT is announced by Eastman Kodak Co., Rochester 4, N. Y. The new Kodak B-C Flashpack, consisting of a 200 mf. capacitor and a $22\frac{1}{2}$-volt battery, can be used in any two-cell battery case, and



will replace regular C batteries in such installations. Up to three extensions wired in series with the main lamp can be fired in synchronization. A disc for shorting out the battery power in the extension unit is supplied with the Flashpack. Price is $2.95. For additional information, see your dealer or write Eastman Kodak.

NEW DU PONT PAPERS are offered by E. I. du Pont de Nemours & Co., Inc., Photo Products Division, Wilmington 98, Del. The addition is the appearance of Varigam variable contrast paper in five new surfaces; these are A, white semi-matte, single weight; AL, white semi-matte, document weight; B, white semi-matte double weight; BT, white semi-matte, double weight; T, white glossy, double weight. Three new surfaces are now available in Warmtone projection paper, too. The three new ones are: QL, cream super rough lustre, double weight; BT, white semi-gloss, double weight; and B, white semi-matte, double weight. For additional information, see your dealer or write the manufacturer.

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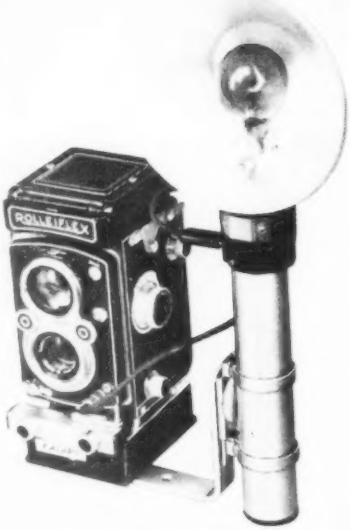
A FOCUSPOT for the Rolleiflex camera is announced by The Kalart Co., Plainville, Conn. The unit is complete with batteries, lamp, and bracket with no wires to connect. It is attached by fastening it to the tripod attachment with a large bolt and is removed



easily. The unit utilizes twin beams of light, which converge when the camera is in focus. Price of the unit is $35, and the only model Rolleiflex for which a Focuspot is available is the f/3.5. Write Kalart for additional information.

A NEW SCREEN is introduced by Da-Lite Screen Co., Inc., 2741 N. Pulaski Rd., Chicago 39, Ill. The new HiLer screen is a combination tripod mounted unit with a special device permitting removal of case and screen for wall and ceiling use. The new screen is available with either crystal beaded or matte white projection surface. The screens, which are adjustable, are available in square formats of 50, 60, and 70 inches. Prices are $35.25, $46.75, and $54, respectively. For additional information write the manufacturer.

A NEW SUB-MINIATURE, the Japanese Komau 16 Automat, is now being offered by Spiratone, 22-24 Steinway St., Long Island City 3, N. Y. The compact camera measures 1¾x3¾ inches, and is semi-automatic in operation. Featuring an f/3.5 coated lens and a flash-synchronized shutter with speeds to 1/200 second, T and B, the camera has

an inner case which, when pulled out, advances the film, cocks the shutter, and sets the exposure counter. A provision allows the insertion of special filters in front of the lens. The camera, complete with leather case, is $21.95.

Spiratone also offers a 105-mm, f/6.3 wide-angle lens in a flash-synchronized Prontor II shutter. The coated lens covers an 85-degree angle on a 4x5 negative, and can be converted to a 210-mm telephoto lens. Price is $24.95. These lenses, in the same shutter, also are available in 90-mm and 120-mm focal lengths. Write Spiratone for more details on both items.

ROLLEIFLEX IMPROVEMENTS are announced by Berleigh Brooks Co., 10 W. 46 St., New York 18, N. Y. The first of these is a combination back which will allow the Rollei to accept either 35-mm or 120 film. Known as the Rolleikin II, this new back will be supplied as standard equipment on all Rollei now coming out of the Franke & Heidecke factory. The back contains an adjustable pressure plate accommodating

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both the 2¼x2¼, 6x6 (4½) picture size and the appearance of the camera remains unchanged. The new counting mechanism is in the release knob, which replaces the standard film knob on the camera. Once installed, the new release knob remains a permanent part of the camera. Film is advanced with the winding crank. The other Rolleikin II parts are carried easily in a small pouch in the coat pocket. Cautions: do not order this back for Rolleis with serial numbers below 1,160,000 and Rolleicords with serial numbers below 1,157,000. The previous Rolleikin attachment is still available for earlier models, and also can be used with new models, for those who prefer this installation.

The second improvement is the appearance of a fully flash synchronized Compur Rapid M-X shutter. This shutter will allow full synchronization for flash from 1/50 to 1/500 second with 20 ms lamps, and also full use of electronic flash with the X setting. Also, the top speed of the f 2.8 Rolleiflex with the new shutter has been upped to 1/500 second. The new Compur Rapid M-X shutters will be standard equipment only on Rolleiflex cameras at this time. Prices for the new Rolleis with new back and new shutter are as follows: with f 3.5 Xenar lens, $209.50; with f 3.5 Tessar, $236.50; with f 2.8 Tessar, $245. Rolleicord prices, with new backs, but not including the new shutters, are: with f 4.5 Triotar, $149.50; with f 3.5 Xenar, $160. All prices include F.E.T., and everyday case. For additional information, write Burleigh Brooks.

A NEW PROJECTOR, the self-contained, portable Projectograph, is now being marketed by The Projectograph Corp., Oshkosh, Wis. The unit is designed to accept 2x2

slides and project them on a built-in screen. The slides are projected in continuous sequence, after being mounted in a Pic-Disk, which will handle 14 slides. The machine can be adjusted to provide 5, 10, or 15 second showings for each slide. The Pic-Disk can be filed with the slides in them. The Projectograph uses a 6-volt, 50 candlepower bayonet lamp, a transformer to handle 100 watts, and a set of ventilators at three points for cooling. Entire unit weighs 25 pounds, and includes projector, case, and cord. Price of the unit is $112.50. Accessories include extra lamps at 50 cents, extra Pic-Disks at $1.95 each, and a remote control for $7. Write the manufacturer for additional details.

NEWS NOTES: Sylvania Electric Products Inc., 1740 Broadway, New York 19, N. Y., offers the Sylvania Flash Slide-A-Guide, which has been compiled from latest data furnished by film manufacturers, and in accordance with ASA practices. The new guide is on sale at dealers for 10 cents.

DeJUR-Amsco Corp., 45-01 Northern Blvd., Long Island City 1, N. Y., announces that owners of DeJUR Fadematic and Embassy 8-mm cameras can have them converted to turret models at the factory for $25. Write DeJur-Amsco for additional details.

Shureflash Laboratory, Inc., 537 E. Third St., Newport, Ky., now offers the A2D adapter for use in the Kodak Flashholder Extension Unit, Model B, for series firing with synchro shutters. For price and method of use, write Shureflash.

Jen Products, Inc., 419 W. 42nd St., New York 18, N. Y., announces the Jen Precision

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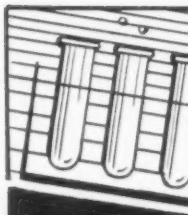

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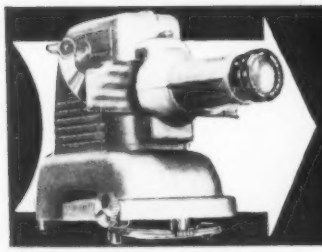

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Plug for flash use. The plugs automatically center the contacts on Jen flash units, and can be repaired with a screwdriver. Price is $1 each. Write the manufacturer for additional details.

Edwal Scientific Products Corp., Ringwood, Ill., announces a new package of photographic chemicals, called the 4 Bottle Darkroom. The unit contains film and paper developers, fixer, and shortstop. Price of the package is $2.85. For more information see your dealer or write the manufacturer.

Mathkin Products Co., 506 First National Bank Bldg., Cincinnati 2, Ohio, offers a lampshade-type flash shield called Shatter Shield, which fits over the flashlamp with wire grippers. Price is $1.49. Write the manufacturer to order, or for more information.

Eastman Kodak Co., Rochester 4, N. Y., announces a group of new "Miniature Colorama" which are smaller versions of the Giant Colorama in Grand Central Terminal, New York City. The 6x8-feet miniatures are being opened in the Buffalo, Cleveland, Detroit, and Cincinnati railroad terminals. The Cleveland display differs from the others in that it alternately presents two pictures in the same frame.

Radiant Manufacturing Corp., 2627 Roosevelt Rd., Chicago 8, Ill., offers a free projection booklet for use with both still and movie projectors. Information is provided on projectors, lenses, seating arrangements, screens, reflection and showmanship.

Starr Corp., 19 W. 19 St., New York, N. Y., announces the availability of Starr lens gauze, for use in cleaning all delicate optical surfaces. See your dealer or write the manufacturer for more details.

Circle S Products Co., 3651 N. Sheffield Ave., Chicago, Ill., announces the new Roto-Lite Professional 6, a six-light unit on rotating arms, for mounting on the camera. Either 300-watt lamps or 375-watt medium beam reflectors can be used in this unit. Price is $24.95, less lamps. See your dealer for additional information.

Kalart Co., Plainville, Conn., announces the Focuscope, an accessory for the Kalart rangefinder. The unit features a telescoping eyetube, and will fit all late Model E Kalart rangefinders. Price is $2.95 at photographic dealers.

Camera Specialty Co., Inc., 50 W. 29 St., New York 1, N. Y., announces the availability of filters and portrait lenses for the Eumig 8S, the Austrian 8-mm movie camera. Each filter and lens is mounted in an adapter ring. A set of three filters, three portrait lenses, and three attachments for the Eumig automatic aperture control device, is $12.50. The units will not be sold individually. Write Camera Specialty for more information.

Ansco, Inc., Binghamton, N. Y., announces the Tri-Pak, a package of three rolls of all-weather film hermetically sealed in a laminated aluminum wrap. Prices are $1.05 for 127 size, and $1.20 for 120 and 620 sizes. See your dealer for additional information.

The New England Division of the Master Photo Dealers and Photo-finishers' Association has established offices in Room 258 of the Park Square Building, 31 St. James St., Boston, Mass.

James H. Smith & Sons Corp., Griffith, Ind., offers a new Victor caster mount for Victor lighting units. The new mount allows the three legs to fold up at the turn of a simple screw. Write the manufacturer for additional information.

Argus Cameras, Inc., Ann Arbor, Mich., and O. W. Ray Corp., 353 Fourth Ave., New York 10, N. Y., announce a price increase for the Argoflex 75 camera. The new price is $15.95, and the Argus 76 flash unit is increased to $4.35.

Bell & Howell Co., 7100 McCormick Rd., Chicago 45, Ill., is making available a booklet called *Tips on Color Movie Making*, which is now on sale at dealers for five cents.

The Tenplus Co., Dept. F., Warren, Penn., announces white, washable rayon Tenplus gloves at $1.95 per pair, for use in handling negatives and color transparencies.

GoldE Manufacturing Co., 1220 W. Madison St., Chicago, Ill., announces that all GoldE projectors are now being equipped with a new "Z" heat filter, to further protect transparencies during projection.

Barnett & Jaffe, manufacturers of camera, projector, movie reel and slide file cases, has moved to new and larger quarters at 6100 N. 21st St., Philadelphia 38, Penn.

E. H. Stone, 3812 N. Mississippi Ave., Portland 12, Ore., now has available a new, all-leather case for the Leica IIIc or IIIf, with Imarect finder attached. The case will be custom made for lens size stipulated, with the front flap being completely removable.

Ansco, Inc., Binghamton, N. Y., announces *Color Photography Made Easy*, a booklet of aid to amateurs which sells for 50 cents at all photographic dealers.

Eastman Kodak Co., Rochester 4, N. Y., announces the fifth edition of the *Kodak Paper Data Book*. The new edition has been extensively revised, and is available from dealers for 35 cents.

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Tools and Techniques

(*Continued from page 24*)

providing more than 2,000 flashes before being discarded—the Zeiss Ikotron. This portable outfit weighs less than 12 pounds in all and provides 75-watt seconds of energy. It dispenses with condenser, vibrator, transformer and rectifier equipment. The big question at the moment is replacement battery cost. Plans are in prospect for export to England but not to this country as yet.

. . . Intensified research by manufacturers into the practicability of 16-mm still cameras with fine lenses and shutters fast enough to avoid camera movement with handheld exposures. The Goerz Minicord, taking 10x10-mm negative frames and equipped with an *f*/2, 25-mm Helgor lens, shutter speeds to 1/400 second, represents a pioneer entry in this field.

. . . Serious attention to the advantages of behind-the-lens Compur-type shutters on 35-mm and small rollfilm cameras which provide a single internally-synchronized flash shutter without sacrificing interchangeability of lenses. The Voigtlander Prominent, already being imported here by Willoughby's and the Akarex (made in Germany) typify this trend.

. . . Renewal of interest in flash powder with the recent introduction of powder capsules designed to fit special flashguns triggered by internally synchronized shutters. One versatile flashing unit, the Duo-Lux, features interchangeable heads which permit the use of either flashbulbs or flash powder capsules.

Odds & Ends. A table of guide numbers for the exposure of Ansco Color Film, daylight type, with speedlight equipment of various watt-second input ratings was included in the July-August 1951 issue of *Ansconian*. For a 50-watt-second unit, a guide number of 19 was recommended; for 100 w-s, 26; for 150 w-s, 33; for 22 w-s, 40, and for 400 w-s, 52. All figures are based on the use of flashtubes in studio-type reflectors with the suggestion that exposure be increased somewhat for shallow, press-type flash reflectors and decreased for narrow-beam concentrating reflectors.

. . . The new Kodak B-C Flashpack containing a 200 microfarad capacitor, a resistor, and a 22½-volt midget battery is now available as a replacement power supply for all flash units designed to accommodate two "C" battery cells placed end-to-end. It is priced at $2.95. The unit is being recommended to the occasional snapshot fan as well as the professional since it does away with the need for getting new batteries almost every time the flash unit is used at irregular intervals throughout the year. When using B-C equipment of this type, remember that extension lamps must be wired in series with the main lamp to effect synchronization. Unused lamp sockets and series outlets must be shorted out to make the circuit effective when the flashgun is fired.—

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Calendar of photographic exhibitions

*Conducted according to the recommended practices of the Photographic Society of America.

First Exhibition of Tree Photographs, New York State Museum, Albany, New York.

On exhibit at New York State Museum, through Nov. 1.

1951 Chicago International Exhibition of Photography*, Chicago International Photographic Salon Association, Incorporated, Chicago Illinois.

On exhibit at Museum of Science and Industry, Chicago, Oct. 20 through Nov. 8.

13th International Exhibit of Photography*, Fine Arts Camera Club, Evansville, Indiana.

On exhibit at the Fine Arts Camera Club, from Oct. 24 to Nov. 3.

Seventh Mississippi Valley Salon of Photography*, The St. Louis Camera Club, St. Louis, Missouri.

Closes Oct. 17.
Entry fee, $1, four prints and/or slides allowed. Color prints accepted.
On exhibit at Founder's Hall, Stix-Baer-Fuller, St. Louis, Mo., from Oct. 29 to Nov. 10.
For information and entry blanks write Alvin W. Prasse, 4152 Botanical Ave., St. Louis 10, Mo.

Eighth Chicago International Color Slide Exhibit*, Chicago Color Camera Club, Chicago, Ill.

Closes Oct. 20.
Entry fee $1, four slides allowed.
On exhibit at Museum of Science & Industry, Nov. 9 at 8 PM, Nov. 10-11-17 & 18 at 2:30 PM.
For information and entry blanks write Russel Kriete, 4249 Byron St., Chicago 41, Ill.

11th Annual Salon of Nature Photography*, Kentucky Society of Natural History, Louisville, Kentucky.

Closes Nov. 14.
Entry fee $1.50 for four prints; $1 for four slides allowed.
On exhibit at Louisville Free Public Library from Nov. 25 through Dec. 9.
For information and entry blanks write Dr. Wm. F. Furnish, Box 81, University of Louisville, Louisville 8, Kentucky.

Sixth Hong-Kong International Salon of Pictorial Photography, 1951, The Photographic Society of Hong-Kong, Hong-Kong.

Closes Nov. 10.
No entry fee or blanks required. Four prints allowed.
On exhibit at The Photographic Society of Hong-Kong, Dec. 3-8.
For information write Mr. Kaan, Se-Leuk, Hon. Salon Secretary, Hong-Kong Photographic Society, c/o Hang Shing Co., Ltd., 52 Bonham Strand East, Hong-Kong.

3rd Annual Chicago Lighthouse Exhibition of Stereo Photography*, The Chicago Lighthouse for the Blind, Chicago, Ill.

Closes Nov. 10.
Entry fee $1, four stereo slides allowed.
On exhibit in Fullerton Hall, The Art Institute of Chicago Dec. 4 through 8.
For information and entry blanks write George W. Blaha, Exhibition Sec'y, The Chicago Lighthouse for the Blind, 3323 West Cermak Road, Chicago 23, Ill.

2nd International Salon of Pictorial Photographic Art, Niharika, the Club of Gujarat Pictorialists, Ahmedabad, India.

Closes Nov. 10.
Entry fee and number of prints on request.

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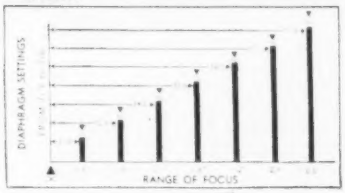

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On exhibit at Niharika, the Club of Gujarat Pictorialists on Dec. 22.
For information and entry blanks write L. S. Dalal, Hon. Sec'y, Niharika, Pratima Studio, Lal Bhavan, Relief Road, Ahmedabad, India.

12th International Photographic Salon of Japan 1952*, All Japan Association of Photographic Societies and The Asahi Shimbun Press, Tokyo, Japan.

Closes Nov. 15.
No entry fee, four prints and six color slides allowed.
On exhibit at Galleries of Mitsukoshi, Tokyo, Japan, Jan. 15 through 22, 1952.
For information and entry blanks write Salon Sec'y, the 12th International Photographic Salon of Japan, Asahi Shimbun Bldg., Yurakucho, Tokyo, Japan.

Series of Three Color Print Competitions*, Color Division of the Photographic Society of America, Philadelphia, Pa.

Closing dates, Nov. 20, 1951, Feb. 20, 1952, May 20, 1952.
No entry fee required for Color Division members. All others $1 for series of three or $.50 for each contest. Four prints allowed.
For information and entry blanks write Contest Director W. H. Savary, R.D. No. 2, Box No. 221, Plainfield, New Jersey.

15th Milwaukee International Exhibition of Photography and the 2nd International Exhibition of Color Stereo Slides*, The Photo Pictorialists of Milwaukee, Wisconsin.

Closes Nov. 24.
Entry fee $1 for four entries in each class.
On exhibit at the Layton Art Gallery, 758 N. Jefferson Street, Milwaukee, Wis., from Dec. 6, 1951, to Jan. 7, 1952.
For information and entry blanks write Robert J. Lauer c/o Milwaukee Glove Company, 807 South 14th Street, Milwaukee 4, Wis.

First New York State Museum Salon of Nature Photographs, New York State Museum, Albany, New York.

Closes Nov. 25.
No entry fee, four prints allowed.
(No birds or mammals as these subjects are included under separate exhibits.)
On exhibit at New York State Museum Dec. 1 through Jan. 31, 1952.
For information and entry blanks write W. J. Schoonmaker, New York State Museum, Albany 1, N. Y.

5th Cuban International Exhibition of Photography and Color Slides*, Club Fotografico De Cuba, Habana, Cuba.

Closes Dec. 4.
Entry fee $1, four prints and/or color slides allowed.
On exhibit at gallery of Club Fotografico De Cuba from Dec. 14 through Jan. 14, 1952.
For information and entry blanks write Club Fotografico De Cuba, O'Reilly 366, altos, por Compostela, La Habana, Cuba.

14th Annual Springfield International Salon of Photography*, The George Walter Vincent Smith Art Museum, Springfield, Mass.

Closes Dec. 4.
Entry fee $1, four prints allowed.
On exhibit at The George Walter Vincent Smith Art Museum from Jan. 2 to Jan. 23, 1952.
For information and entry blanks write Salon Secretary, The Springfield International Salon of Photography, The George Walter Vincent Smith Art Museum, Springfield 5, Mass.

The Royal Adelaide Exhibition Salon, The Adelaide Camera Club and the South Australian Chamber of Manufactures, Adelaide, South Australia.

Closes Jan. 26, 1952.
Entry fee $1, four prints allowed.
On exhibit at Centennial Hall, Adelaide, from March 7 to May 3, 1952.
For information and entry blanks write A. C. Willcox, Salon Secretary, The Royal Adelaide Exhibition, 12 Pirie St., Adelaide, South Australia.

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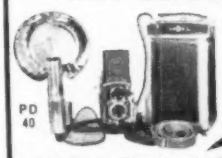

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CONTESTS

LIFE MAGAZINE announces a $15,000 picture contest for young photographers, with a deadline for entries on Sept. 15. There will be two prize divisions—one for individual pictures and another for picture stories or sequences. The contest, designed to discover new talent, is open to all residents of the United States whose 21st birthday does not fall before January 1, 1952. Both amateurs and professionals are eligible to enter, but all contestants must have had pictures published at least once and must submit proof of this with their entries. Not eligible are *Life* photographers, past and present, employees of Time, Inc., and staff photographers of magazines with a circulation of more than 500,000. Preliminary judging will be done by *Life* staffers; final judging by a panel of experts including James Wong Howe, Julius Klinman, Edward Steichen, Roy Stryker, Edward K. Thompson, Alfred Eisenstaedt, and Frank Scherschel. All of a contestant's prints will be judged at once, because the purpose of this contest is to find the best photographers within each division—not which are the best photographs. Four pictures, no more nor less, must be submitted in the individual picture section. In the picture story division, no more than two stories or sequences may be entered. If a contestant enters both divisions he is limited to a total of 20 pictures. All shots must be black-and-white 8x10 or 11x14, individually mounted with 5/8-in. of mounting trimmed flush with outside margins of the photograph. For entry blanks and further information write: *Life's* Contest for Young Photographers, P. O. Box 10, New York 16, N. Y.

ARGUS CAMERAS, INC., announces the 1952 Argus Calendar photographs contest with a first prize of $100 for the picture selected as cover, and twelve $25 prizes for the photographs used inside the calendar. Special consideration will be given pictures made with an Argus camera. Entries should be informal, have human-interest appeal, and be suitable for use as seasonal illustrations—New Year's, Christmas, Fourth of July, etc. Any number of pictures can be entered if they are black-and-white glossy prints approximately 4x5 or larger in size. Negatives and model releases must be available in the event a print is selected as a prize-winner. All prints entered will remain the property of Argus, Inc., and none will be returned. Mail entries to Argus Cameras, Inc., Calendar Contest Department, Ann Arbor, Mich.

THE MONTANA CHAMBER OF COMMERCE announces a photography contest for black-and-white pictures of Montana scenery. A two-week dude ranch vacation is the first prize, a 7-day tour of Yellowstone Park is the second, a 7-day vacation in Glacier Park is the third, and 15 pieces of photographic equipment will be awarded to the runners up. The contest, open to all amateurs except members of the Montana Chamber of Commerce, runs from June 15 to December 1, 1951. All photographs entered must have been made between these dates. The pictures will be judged primarily on interest and pictorial appeal; photographic technique is secondary. A special "Kid's Division" is open to children of 12 years or younger. Any number of entries may be submitted but with each must be included an entry blank and sufficient postage if return is desired. For free entry blanks and to submit pictures, write The Montana Chamber of Commerce, Helena, Mont.

OAK CREEK CANYON-SEDONA CHAMBER OF COMMERCE announces its Second Annual International Color Competition for transparencies of any size taken in the Oak Creek Canyon-Sedona area and showing the beauties of Arizona's red rock region. Photographers all over the world are invited to join this contest which closes Nov. 30, 1951. A first prize of $200 in cash and seven honorable mentions will be awarded plus a special prize for the winner in the new stereo slide section. Stereo entries also are automatically eligible for the general prizes. All 1951 entries will be considered for use in the Oak Creek Canyon post card series. Free entry blanks may be obtained by writ-

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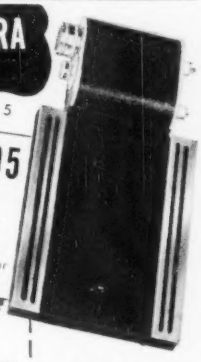

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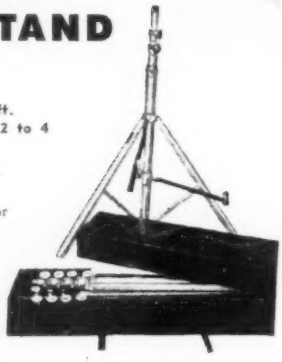

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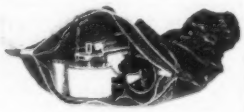

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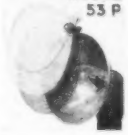

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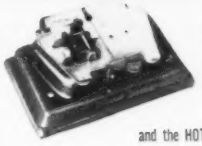

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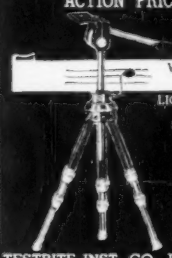

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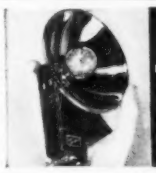

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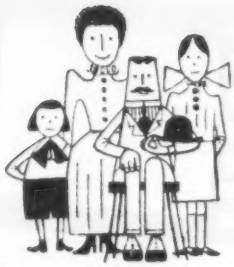

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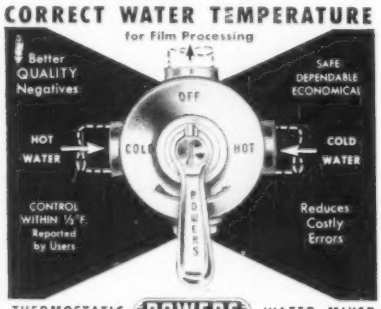

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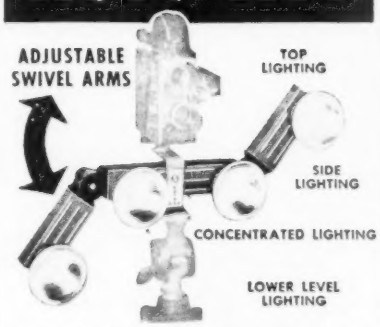

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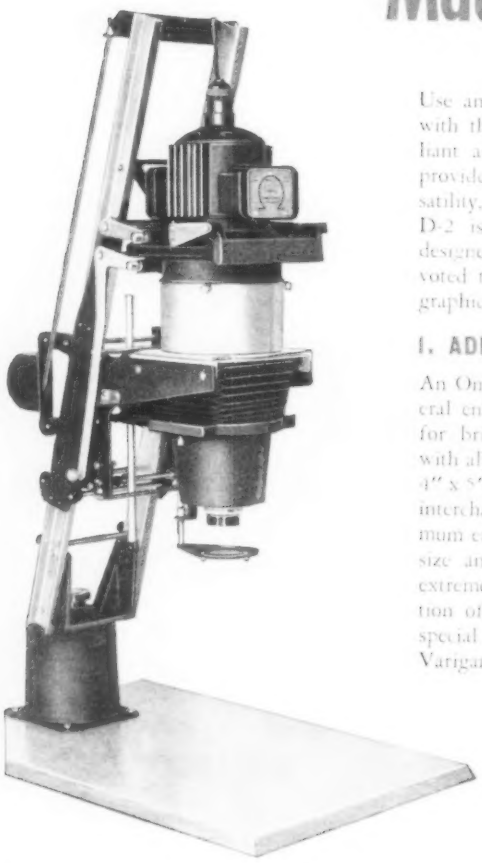

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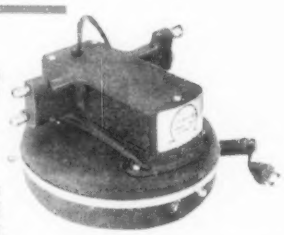

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